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THESIS

LEVERAGED LEASING
IN THE FEDERAL SECTOR

by

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December 1983

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Leveraged Leasing in
the Federal Sector

by

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ABSTRACT

DEPARTMENT OF THE NAVY
NAVY
MARITIME PREPOSITIONING SHIPS

The Department of the Navy recently acquired eighteen auxiliary ships, five T-5 tankers and thirteen TAKX cargo carriers. The financing of these ships was not carried out via the standard purchase appropriation but rather through a complex transaction, known as a leveraged lease. The tax benefits contained in the Economic Recovery Tax Act (ERTA) of 1981 permit either public or private entities to share tax benefits with the owner of an asset. Leveraged leasing is based on this principle. The tax benefits received by a public tax exempt entity is a loss to the Federal Treasury and Congress has reacted with legislation to control it. This study examines leveraged leasing in the private and public sector with special emphasis on the lease by the Navy of the thirteen Maritime Prepositioning Ships (TAKX). The complex sequence of cash and tax flows are discussed as well as the impact on the federal budgeting process and Congressional efforts to control the effects on the Treasury.

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I. INTRODUCTION

A. GENERAL

The Department of the Navy is currently involved in a unique lease transaction to gain the services of two new types of auxiliary ships, namely the T-5 tanker and the Maritime Prepositioning Ship (TAKX) cargo carrier. The vessels are to be leased from the civilian sector, and to be manned by civilian personnel.

The program began in response to a requirement to provide ships to support the prepositioning of bulk cargo for the Rapid Deployment Force. The budget initiatives to buy the ships were not successful as Congress placed a higher priority on other programs and eliminated procurement funds from the defense budget in Fiscal Year (FY) 1981. A recommendation at the time was for the Navy to continue to pursue "privitization" by reducing competition with commercially available resources and to turn to the Merchant Marine to provide the necessary hulls. The Navy submitted, in FY 82, a plan, approved by the Secretary of Defense and Office of Management and Budget to rely on the Merchant Marine by chartering the TAKX and T-5 vessels.

The TAKX and T-5 build (or convert) and charter program was approved by four Congressional oversight committees in September 1982.

The Navy has executed binding contracts for all thirteen (13) TAKX ships with General Dynamics (who will build five), Waterman Steamship Corporation (who will convert three ships) and Maersk Lines Ltd. (who will convert five ships) for a total capitalized cost of \$2.3 billion. Ships are under construction in four shipyards, \$2.2 billion in revolving credit has been arranged with four bank syndicates and hundreds of millions of dollars of orders for steel, equipment components, and other material have been let to meet the construction/conversion schedule. Two of the ships to be converted have already been cut in half in preparation for mid-body sections.

The Navy has also entered into building contracts with Ocean Carriers Inc. to build and charter five T-5 type tankers costing \$330 million. Construction has also begun on this contract.

Despite Congressional approval received for TAKX and T-5 and the more than fifty U.S. flag vessels already under charter, the TAKX and T-5 transactions have caused a great amount of controversy. Most of the concern centers around the particular type of lease used by the Navy to procure the services of the thirteen TAKX vessels and the five T-5 tankers. It is known as a leveraged lease.

A leveraged lease uses tax benefits available from the Economic Recovery Tax Act (ERTA) of 1981 together with lease rental payments to provide an investor with a

satisfactory rate of return. Some find this use of tax incentives objectionable and their concerns will be discussed. However, it should be noted that the Navy has not undertaken the TAKX program because tax "loopholes" were suddenly available to those who participate in the lease markets. The Navy has been trying to purchase a cargo carrier like TAKX for over twenty years.

In 1960 the House Armed Services Committee held extensive hearings on military airlift and sealift capabilities and devised an interim solution to the obvious lack of ships and planes to support the national defense plans.

The Forward Floating Deployed (FFD) ships, which were rehabilitated Victory ships, provided some of the needed lift capacity particularly for outsized equipment and three were programmed for FY 1963. Longer term solutions were proposed by Congressional and DOD study groups which recommended a combination of airlift and sealift provided primarily by the C-5A aircraft and a new Fast Deployment Logistic (FDL) ship. The FDL ship has been an operational requirement since the early 1960's and was envisioned together with the C-5A as a flexible logistic support system capable of operating from CONUS bases or as forward deployed units. The C-5A was funded but not the FDL. To provide the required sealift capability the Navy has leased commercial hulls and TAKX is the latest version of that continuing requirement.

1. Leveraged Lease Transaction

A leveraged lease is designed to provide benefits to both the lessor and the lessee by essentially sharing the tax benefits available to the owner/lessor. The structure of a leveraged lease allows the owner of an asset to take tax benefits based on the full value of the asset with an investment of as little as twenty percent of the purchase price. A lender provides the balance of funds. The enormous tax benefits of ownership are, therefore, leveraged with a limited investment and the company in need of an asset has use of it at a rental fee which can be reduced to reflect the tax benefits received by the owner.

An analysis of a leveraged lease is complex due to the different perspectives from which the participants view the transaction. It is also difficult to evaluate because of the unique pattern and timing of the cash flows which include not only direct receipts and expenditures by the participants but also the incidence of taxes due to the Federal Government. The TAKX and T-5 programs are especially interesting because the lease under which they are acquired includes the Federal Government as a participant and therefore further complicates the structure of the lease and the pattern of cash flows.

This thesis examines the structure and cash flows of a leveraged lease in which the Federal Government is the charterer/user of a capital asset. There are specific

issues related to the structure and cash flows that are of concern, especially the unresolved issue of the total cost of the program. These issues will be discussed at length.

2. Leasing in the Navy

Leasing auxiliary shipping to increase bulk cargo tonnage available for the transfer of both men and material is not new. Congress approved the lease of thirty ships under a Build and Charter program starting in 1952. The Navy leased nine ships in 1973 under a Build and Charter arrangement which had many of the financial characteristics of TAKX and T-5. Military Sealift Command charters commercial ships on a regular basis and currently has more than 50 under some form of lease arrangement. But, unlike the routine chartering of space implied in most leases, the T-5 and TAKX and the 1973 Build and Charter program are multi-ship acquisitions with potentially lifetime contracts that involve the Federal Government in almost all aspects of the ship's operation and financing. With such total involvement in the asset, many want to know why the Navy decided to lease rather than buy. In many minds, T-5 and TAKX financing through this unique type of lease is actually a disguised purchase.

The Navy presents expert opinion that shows leasing the TAKX and T-5 ships will cost less than purchase by a significant amount, 16.1%. The Joint Committee on Taxation and the General Accounting Office analyzed the same data

and predicted the lease alternative would be more expensive than purchase by 11.7%. The almost \$50 million difference per ship between the two groups stems from different theories of the effect TAKX and T-5 will have in the debt markets and on the cash flows and reflows that are a part of a leveraged lease.

3. Congressional Concern

The structure of the lease for the TAKX and T-5 has stirred a debate within Congress and the Department of Defense. The lease relies on tax benefits to reduce the direct cost to the Navy. Critics argue that those same tax benefits were intended for the private sector to encourage capital investment, not to subsidize expenditures of the Navy's appropriated funds.

When a federal agency becomes a party to a leveraged lease transaction it is argued by the Joint Committee on Taxation and Government Accounting Office that the Treasury Department in effect subsidizes the transaction via a negative tax flow. In other words, the tax savings advantage the leveraged lease gives the vessel owner reduces the amount the federal agency must pay directly, but may increase the total cost to the government due to lost tax revenue. Consequently, the negative tax flow must be properly measured and assigned as a cost of the transaction. If this measurement were possible, then a simple cost benefit analysis comparing a leveraged lease to

a direct purchase would be feasible. This negative tax flow amount could be assigned to the appropriate agency's budget proposal enhancing the scope of Congressional oversight in the matter. Addressing this issue in Senate testimony a spokesman for the Department of the Treasury said:

"The allowance of tax incentives on assets leased to the Federal government, per se, has no real budget impact, provided the lease is properly accounted for in the budget process." [Ref. 1]

Additionally, state and local governments have started to use a leveraged lease to raise much needed capital. They sell their real property to investors who then lease it back via a leveraged lease transaction at effective rates of interest below tax-exempt bonds. In essence the non-profit entity obtains cash while the private investors can depreciate the property and obtain investment tax credits and other tax benefits. The costs are borne by the federal government in reduced tax revenue. Additionally, these tax reflows are not accounted for in the Federal budget and, therefore, the drain on Treasury Department reserves is uncontrolled.

In effect these government institutions are selling tax benefits (via the sale and lease-back of real property) that they themselves cannot use, to private sector investors who can. The investors in turn charge the government below-market rents so the net effect is to give

the government financing below prevailing interest rates. The differential is provided by the tax benefit 'passed through' from the taxable entity to the non-taxable one. This is called a Tax Exempt Leveraged Lease (TELL).

At the Federal level the situation becomes even more complex because, expenditures for goods and services are offset by tax receipts by the Treasury and a program should be evaluated net of these amounts. To properly evaluate the TAKX and T-5 programs values must be assigned to the tax benefits and reflows and combined with other known outlays. There is very basic disagreement between the various agencies in their assumptions of which cash flows are relevant in their analytical models. We are interested in these differences and how they effect the determination of the true cost of a Federally Involved Tax Exempt Leveraged Lease (FITELL). An additional issue is the impression in Congress that the budget oversight process is in some ways circumvented by the characteristics of leasing in general and leveraged leasing in particular.

B. ISSUES TO BE DISCUSSED

Our effort will be concentrated primarily in three areas. First, a leveraged lease as it pertains to the TAKX T-5 procurement will be explained beginning with the structure and participants of a 'simple' lease, evolving through a leveraged lease in the private sector, a

leveraged lease in the non-Federal public sector to the current structure of the leveraged lease involving the TAKX. Particular emphasis will be placed on the participants, their interrelationships, and how the flows and reflows associated with a leveraged lease evolve from the structure of their relationship.

Second, the relevant costs and cash flows of leveraged leases will be discussed and their many controversial aspects presented. Documentation developed by the consultants for the Navy and Congressional committees will provide the basis for discussion of the financial structure of leveraged leasing.

Efforts to develop a model within which to calculate a precise cost of the lease and purchase alternatives proved to be an exercise in futility because of the complexities of the flows and reflows that potentially impact the model. There are several extensive commercial computer models which, in response to requested parameters, compute lease payments, implicit interest rates, and the exact debt-to-equity ratio that will provide the required rate of return for an investor. Therefore, the commercial model used to develop the lease payments will be taken as correct, as it was by JCT and GAO. However, commercial models do not examine other flows associated uniquely with FITELL and it is these expected flows of payments, revenues, and tax benefits which will be examined.

Third several non-financial aspects of leveraged leasing in the federal sector will be examined, such as Congressional oversight and efforts to control tax exempt leveraged leasing (TELL).

The TAKX procurement will form the basis of the presentation. It has been the example most often utilized to identify the costs and cash flows associated with the leveraged lease discussions. Additionally, a great amount of detail of the structure and form of a leveraged lease is available through TAKX.

Our study will concentrate on the leasing of the thirteen TAKX vessels, any associated cash flows appearing in the study are taken directly from leasing models used to evaluate TAKX. The T-5 tanker lease is structurally the same and all arguments presented for the leasing of the TAKX are applicable to the T-5. Therefore, the TAKX lease will serve as a surrogate for both the TAKX and T-5.

During the research and compilation phases of this thesis it became apparent that the complexity of the leveraged lease structure lends itself to confusion and misinterpretation. Therefore, throughout the thesis an effort has been made to simplify the structure and prepare the basis for further study of this evolving phenomenon.

C. RESEARCH STRATEGY

A standard methodology was employed in the preparation of this study. An extensive literature search was

conducted involving both the National Technical Information Service (NTIS) and the Defense Logistic Studies Information Exchange (DLSIE) to identify existing information of lease theory and leasing programs in the private and public sectors. Additionally, numerous interviews with professors at NPS provided a theoretical basis to analyze the TAKX leasing transaction.

Interviews were also conducted with participants involved in the transaction to obtain their personal views and insights. At these interviews or through these contacts we collected recent studies of the leveraged lease and actual procurement contracts. Interviews were conducted at Military Sealift Command, including the Contracting Officer (CDR R.L. Gustavus) and the Counsel of Record (Lars Anderson) for the TAKX transaction. Members of the Defense Acquisition Regulation (DAR) council, Office of the Chief of Naval Operations and the Office of the Comptroller of the Navy were visited. An interview was conducted with Mr. Everett Pyatt, Assistant Secretary of the Navy (Shipbuilding and Logistics), who has been a primary advocate of TAKX and leveraged leasing and presented the program at budget and other Congressional hearings.

D. SPECIFIC QUESTIONS TO BE ADDRESSED

The following specific questions will be addressed in this thesis:

- 1) What is leveraged leasing, who are the participants, and what are their relationships?
- 2) How is leveraged leasing applied in the federal sector, (i.e., what is FITELL)?
- 3) What are the relevant costs and accompanying cash flows associated with FITELL?
- 4) Does FITELL abort the Congressional oversight process?

E. ORGANIZATION

The following chapters are organized to present leasing in general, and leveraged leasing in particular, in a systematic way beginning with the structure of a simple lease, building on that to the more complex leveraged lease and then proceeding to the pattern of cash flows that make this transaction so unique. Chapter Two builds a leveraged lease from a common base point to familiarize the reader with the applicable portions of generally accepted accounting principles, GAAP, and how they impact on the tax aspects of a leveraged lease. Chapter Three presents a discussion of the cash flows associated with a leveraged lease using the TAKX procurement. Chapter Four deals with the problems of Congressional oversight and how the structure of a leveraged lease may distort the budget process and what Congressional initiatives are pending to restore the full control Congress requires. Chapter Five contains conclusions.

II. BACKGROUND

A. THE TAKX PROGRAM

This thesis uses the Navy's current procurement of thirteen (13) Maritime Prepositioning Ships (TAKX) via a leveraged lease financing vehicle to provide the basis for examining the costs and benefits of tax exempt entities in using leveraged leasing to procure equipment or services. Our discussions will involve the financing criteria and decisions and will not address the investment decision. The decision that established the need for the 13 TAKX ships is beyond the scope of this thesis. Likewise, other creative procurement or financing schemes will not be examined.

This chapter identifies the differences between a basic lease and a leveraged lease in terms of structure and accounting requirements relative to GAAP. Additionally, the general differences between a capital acquisition via a leveraged lease will be examined relative to a purchase.

In order to prepare a foundation for examining the leveraged lease question in terms of the TAKX transaction, the following background of the TAKX's mission and development combined with the current procurement action will be presented.

The existence of the TAKX program is a natural outgrowth of the requirements being placed upon the Military Sealift Command (MSC) as a supporter of the Rapid Deployment Force (RDF) team. Certain operational scenarios require the RDF to deploy to areas without air cargo facilities so the TAKX was developed to preposition in forward areas the bulk material needed to support operations for at least thirty days. It is a built to purpose roll-on/roll-off (ro-ro) container vessel that can be loaded and unloaded in areas without port facilities. The 13 TAKX ships are to be chartered by the Navy and prepositioned at sea near potential crisis areas to provide swift response at the troubled site. Manned by civilian seaman and operated by a civilian maritime carrier, the thirteen ships have been designed to carry enough cargo for three brigade-sized Marine air-ground forces (MAGTFs) consisting of 46,000 Marine personnel. [Ref. 2]

The original decision to lease rather than purchase was based on the perceived inability to obtain procurement funds for noncombatant ships. This perception was supported by GAO. They stated in their analysis:

"We agree that monies to purchase noncombatants are more difficult to obtain, because at various levels the tendency has been to delete requests for funds to purchase noncombatants." [Ref. 3]

Everett Pyatt, Assistant Secretary of the Navy, (Shipbuilding and Logistics) in his testimony to the Senate

Committee on Finance noted that, "the 'Build and Charter' method, whereby new ships are built and on completion chartered to the Navy, is not a new concept." Mr. Pyatt went on to elaborate the policy is consistent with Congressional policy to rely on the "U.S. Merchant Marine to meet the majority of its (the Navy's) ocean transportation needs during both peace and war." [Ref. 4] These two statements along with the need for auxiliary cargo ships within the RDF succinctly identify three basic points for TAKX's existence:

- 1) The need for the TAKX vessels was documented.
- 2) The Navy's perception that direct procurement funding for noncombatants was not available.
- 3) The precedent for leasing cargo tonnage existed and was fundable.

Essentially the plan to rely on the Merchant Marine and charter the TAKX vessels was developed within the Navy, approved by the Secretary of Defense and Office of Management and Budget, then submitted to Congress as part of the FY-82 program [Ref. 5]. Argent Group, Ltd., a financial services company, hereafter referred to as Argent, was selected as the 'packager' of the leveraged lease, a position acquired via a competitive bidding process, with final selection being made by the Department of the Navy. Argent Group analyzed in detail both the T-5 and TAKX leases. The analysis included sensitivity analysis of various discount factors, analysis of the

economic impact upon the Department of the Navy (DON), upon the Treasury Department and upon the entities in a combined sense. The basic lease payment schedule was computed by the LAS (Lease Analysis System) computer model, a commercial package, which is extremely sensitive to the timing of all cash flows. Argent used LAS to predict the cash flows and rates of return to the participants. Other analyses of the leveraged lease/purchase alternatives were conducted and their results generally supported the Argent study. Cooper's and Lybrand, an accounting firm, performed one such study. The Office of Secretary of Defense also commissioned an economic analysis prepared by the Institute of Defense Analysis. Following a final economic analysis by the Surveys and Investigations Staff of the House Appropriations Committee the Navy received written authorization and approval to proceed with the TAKX charter program from both the Senate and House. [Ref. 4]

Concurrently the Joint Committee on Taxation (JCT) operating in support of the House Ways and Means Committee prepared another study. This study used TAKX as a basis for identifying the various issues that must be reviewed with respect to leveraged leasing in the federal sector.

Subsequently, GAO also completed a study of the TAKX transaction and supported the Joint Committee on Taxation concluding that although the lease was very advantageous to the Navy, overall leveraged leasing cost the

Federal government more than buying the ships [Ref. 6]. A formal rebuttal to the Joint Committee's report was prepared by Argent for the Navy. Argent's rebuttal tried to address point by point the differences in relevant costs identified in its original studies with those delineated by the JCT.

As of December, 1983, the interim financing necessary to construct the first three ships has been secured. The debt and equity portions of the transaction, to transfer ownership of the vessels on their completion from the ship builder, are being placed in the leveraged lease markets. The transfer of ownership from the shipyard to the lessors allows completion of the leveraged lease to the Navy by passing legal ownership to the lessors who in turn may then enter a service contract with the Navy.

B. LEASING

Given the discussion of the current TAKX situation an examination of leveraged leasing will be presented. Initially a general lease will be identified and from this structure a leveraged lease in the public sector will be described. The differences in the structure of the leases and the accounting principles to which each type of lease must adhere for tax purposes together with the associated tax benefits form the crux of the lease versus purchase controversy surrounding leveraged leasing in the public sector.

Leasing in the very basic sense is nothing more than a financing arrangement for one entity to procure the services of an asset without having to provide sufficient funds to purchase the asset directly. Instead, it rents assets from another institution, thereby gaining the services it needs without providing the capital (or liability) necessary to purchase outright. The promulgated Generally Accepted Accounting Principle (FASB-13) defines a lease as an agreement that conveys the right to use assets (tangible or intangible) for a stated period [Ref. 7]. The leasing alternative must be evaluated in light of standard financing considerations such as:

- 1) The internal cost of capital of the lease payments.
- 2) The length of time for which the asset will be productive.

After management has decided to lease an asset, and before the agreement is signed the lessee must decide on how to classify the lease for accounting purposes. The classifications of the lease is important for it impacts heavily on the financial statements of the parties involved and also on how the lease is treated for tax purposes. The types of leases include direct financing, sales-type, operating, and capital. Each distinction will be discussed and the relevance to the study of FITELL will be highlighted.

1. Capital and Operating Leases

From the lessee's perspective a lease can be classified as either a capital lease or an operating lease. This distinction is critical since operating leases are 'off balance sheet' and capital leases are 'on balance sheet' [Ref. 8]. Off balance sheet financing means that the lease is not reported as an asset or liability on the balance sheet, as opposed to an on balance sheet financing where an asset and corresponding liability are recorded. As will be discussed later the Navy's opinion of the TAKX transaction is that it is an operating lease. This distinction in classifying the lease is one of substance over form. The distinction is based on which party of either the lessor or lessee substantially acquires the benefits and risks associated with ownership and most important how the lease will be treated for tax purposes. [Ref. 8]

A lease that transfers basically all the benefits and risks inherent in the ownership of property is called a capital lease. Such a lease should be accounted for by the lessee as 'on balance sheet', recording as an asset the present value of unpaid rents and accordingly the same value as a liability [Ref. 7]. Transfer of ownership and hence the determination of a capital lease is defined by meeting one of the four following criteria:

- 1) By the end of the lease term, ownership of the leased property is transferred to the lessee.
- 2) The lease contains a bargain purchase option. Note: a bargain purchase option identifies a lessee's option to purchase the leased property at a bargain price that makes the exercise of the option almost certain.
- 3) The lease term is substantially (75% or more) equal to the estimated useful life of the leased property.
- 4) At inception of the lease the present value of the minimum lease payments, with certain adjustments, is 90% or more of the fair value of the leased property. [Ref. 8]

Capital type leases are classified as direct financing or sales type leases on the lessor's balance sheet. A direct financing lease and sales type lease are essentially the same transaction. Both assume:

- 1) The benefits and risks of ownership are transferred to the lessee.
- 2) Collectibility of the minimum lease payment is reasonably predictable.
- 3) No important uncertainties exist regarding the cost to be incurred by the lessor under the terms of the lease [Ref. 8].

The difference in a direct financing lease relative to a sales-type is that under a direct financing lease, the lease does not result in a manufacturer's or dealer's profit or loss to the lessor, where in a sales-type a profit or loss would occur [Ref. 7]. In a sales-type lease the fair value of the leased property at the inception of the lease differs from the cost or carrying amount; in a direct financing lease, the fair value of the leased

property at the inception of the lease is the cost or carrying amount. This is because a manufacturer's or dealer's profit usually exists in a sales-type lease and fair value is defined as the normal selling price of the property. In a direct financing lease fair value is cost [Ref. 8]. Therefore, in the ensuing discussion of TAKX, its residual value and market value at the 25 year point are assumed to be equal and, therefore, TAKX is considered to be a direct financing lease. The direct financing distinction is important because from the lessor's perspective the lease can be deemed a true lease for tax purposes and qualify for the existing tax benefits.

Conversely, operating leases are 'off balance sheet' because the lease is not reported as an asset or liability on the balance sheet, and the rental payments are charged to expense in the period incurred. [Ref. 7]

The lessor in a capital lease recognizes income from a capital lease by amortizing unearned income over the lease term so as to produce a constant periodic return on the net lease investment. However, in an operating lease the lessor reports income over the lease term when, and as, it becomes receivable. Accounting for an operating lease is usually not acceptable to the lessor because of the deferral of income as noted above, which results solely from its classification. [Ref. 8]

Within the scope of this thesis the classification of the lease will only be of consequence in determining the tax benefits held by the owner of the asset. The above discussion was presented to provide a common reference for several issues that will be discussed later.

2. True Lease

Most of the economic benefits commonly associated with leasing are available only in a "true" lease. The requirements for a true lease for income tax purposes are easier to meet than the financial requirements for classifying a lease as an operating lease. [Ref. 8]

A true lease is a tax oriented lease in which the lessor claims and passes through to the lessee most of such tax benefits in reduced rental payments. "The lessor claims depreciation deductions and the lessee deducts the lease payment as an expense. The Investment Tax Credit (ITC) may be claimed by the lessor or, by agreement, the lessee. The lessor owns the leased equipment at the end of the lease term." [Ref. 8]

In order for a lease to qualify as a true lease for tax purposes all of the following criteria must be met:

- 1) At the beginning of the lease, the estimated fair market value of the leased asset at the end of the lease term will equal or exceed 20% of the original cost of the asset.
- 2) At the beginning of the lease, the estimated remaining useful life of the leased asset at the end of the initial lease term will equal or exceed 20% of the original estimated useful life of the equipment and be at least one year.

- 3) The lessee must not have a right to purchase or re-lease the leased property at the end of the lease term or at the time such right is exercisable at a price which is less than its fair market value.
- 4) At the beginning of the lease and at all times during the entire lease term, the lessor must have a minimum unconditional 'at risk' investment equal to at least 20% of the cost of the leased property [Ref. 7].

Again, the financial accounting of leases and their classification under IRS regulations may differ. As will be discussed later, the classification for accounting purposes according to GAAP is just as important as the structure of the leveraged lease for tax purposes which allows for the movement of the tax benefits to the entity that can best utilize the deductions.

In a standard leasing arrangement there are two parties; the lessee and the lessor. Given the need exists and the decision has been made to lease the asset, it is the user-lessee's responsibility to identify to the manufacturer the specifications of the asset and negotiate its price. After negotiation of the sales contract the lessee enters into an agreement with the lessor, the lessee assigns its purchase rights to the lessor who then buys the asset. The lessee will begin to pay rent to the lessor. These rents are net and it is the responsibility of the lessee to pay taxes, service, and insurance associated with the asset [Ref. 8]. As previously stated, the options at the end of the lease term determine the nature of the lease for tax purposes. All lease arrangements discussed from

this point hence will be assumed to be structured as a true lease for tax purposes. A simple diagram of the above mentioned lease is depicted in Figure 2-1.

C. LEVERAGED LEASING

"Leveraged lease transactions, as the term is generally used, are structured as true leases for tax purposes."

[Ref. 8] However, as opposed to normal operating leases, a leverage lease is an extremely complex legal transaction. Due to its complexity and cost to implement, the leverage lease is mostly used in multi-million dollar projects requiring the services of experts in accounting, taxation, and law [Ref. 9].

From the purview of the Federal Government there are three types of leveraged leasing:

- 1) Private sector leveraged leasing.
- 2) Tax exempt leveraged leasing (non-profit or non-federal public entities).
- 3) Leveraged leasing by the Federal Government.

A leveraged lease involves three parties; 1) the lessee, 2) the lessor, also referred to as the equity participant, and 3) the lender, also referred to as the debt participant [Ref. 9]. The lessor must provide at least 20% of the purchase price of the asset to meet item 4 under the true lease qualifications above. The lender provides the remaining funds to buy the asset. The proper mix of equity and debt funding is computed to maximize the

DIAGRAM OF SIMPLE LEASE

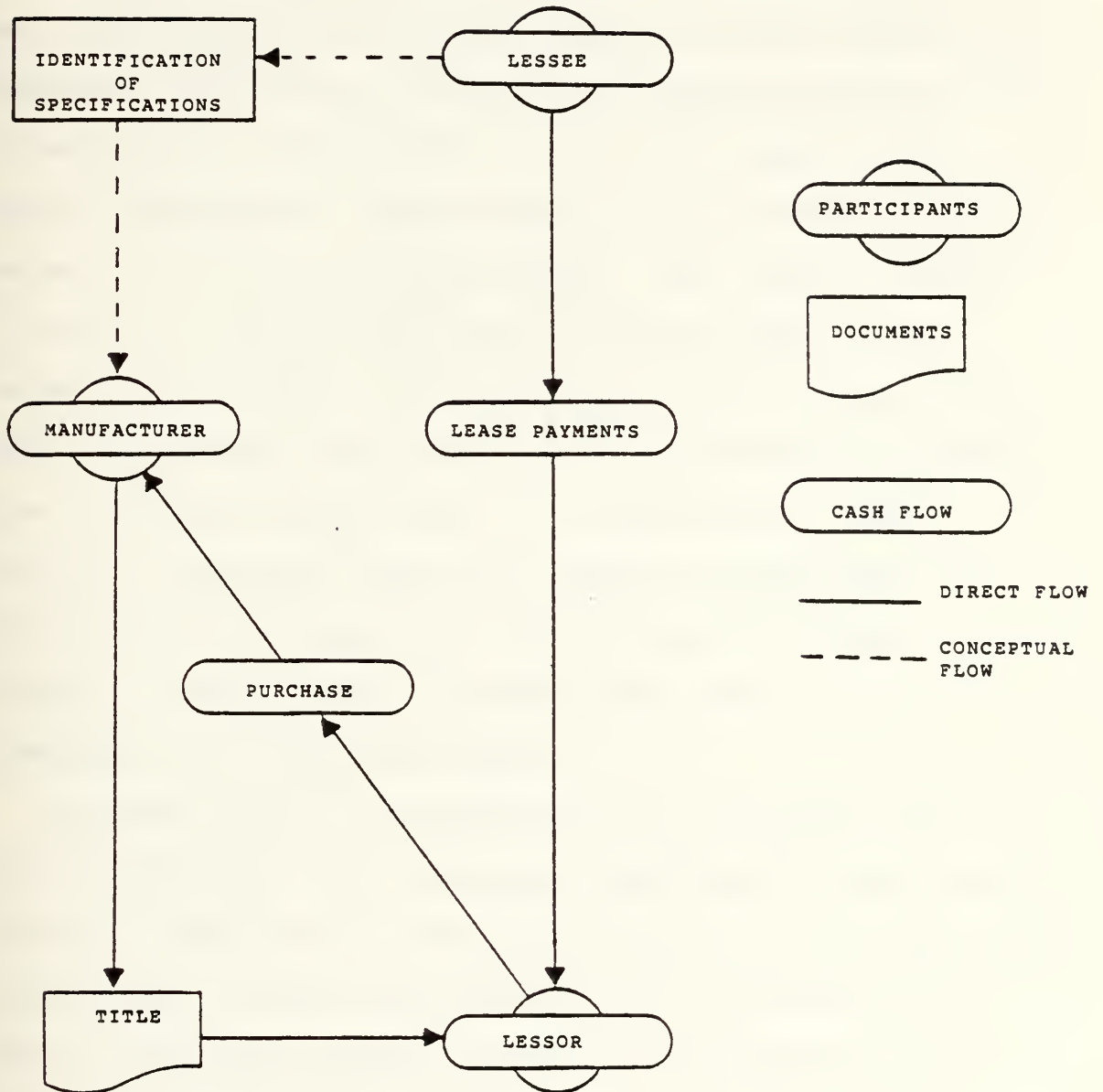


Figure 2-1

rate of return to the lessor. The lenders return is simply the interest on the outstanding debt and therefore is not heavily weighted in deciding the mix. 'Private-sector' leveraged leasing is a form of financing whereby using debt, the lessor is able to "leverage" the tax benefits of ownership. The lessor obtains accelerated depreciation and investment tax credit benefits with only a small (20%) capital investment. These benefits can be passed on to the lessee in the form of lower rentals. The lessor, instead of putting up 100% of the cost of the equipment to be leased, puts up some portion of the cost and finances the remaining initial cost of the asset with non-recourse debt from an outside lender [Ref. 9]. Additionally, GAAP defines a leveraged lease with respect to the lessor for classification purposes as a direct financing lease. Figure 2-2 depicts the arrangement and participants necessary for a leveraged lease.

However, due to its complexity the leveraged lease involves many more than the three participants noted above. Figure 2-3 shows what a standard leveraged lease looks like graphically. A detailed example will be provided to identify the participants and their relationships in a leveraged lease involving the charter of a U.S. flag vessel.

As stated previously, in a leveraged lease the owner (lessor) of the asset employs borrowed funds to provide a

DIAGRAM OF CONCEPTUAL LEVERAGED LEASE

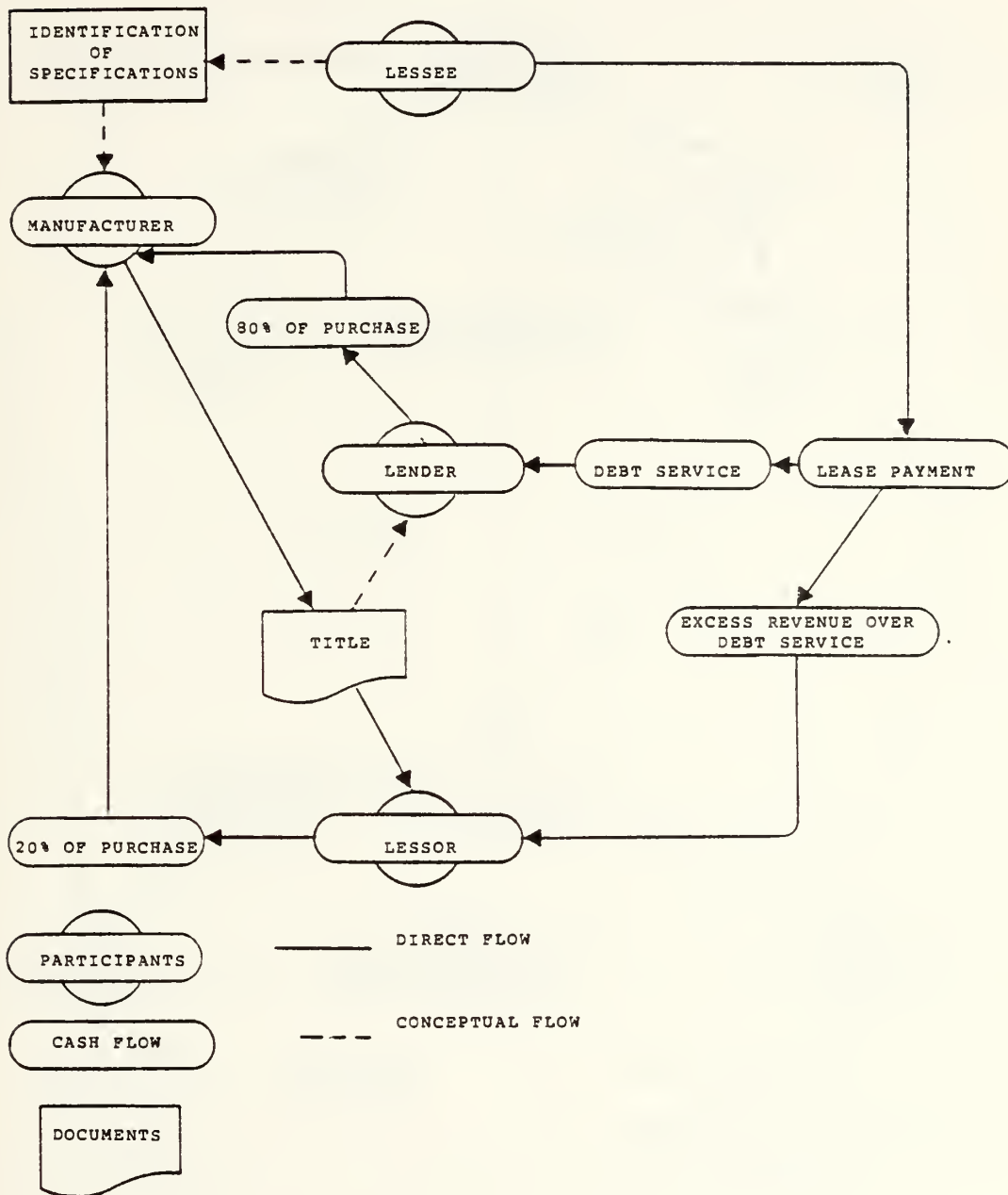


Figure 2-2

DIAGRAM OF STANDARD LEVERAGED LEASE

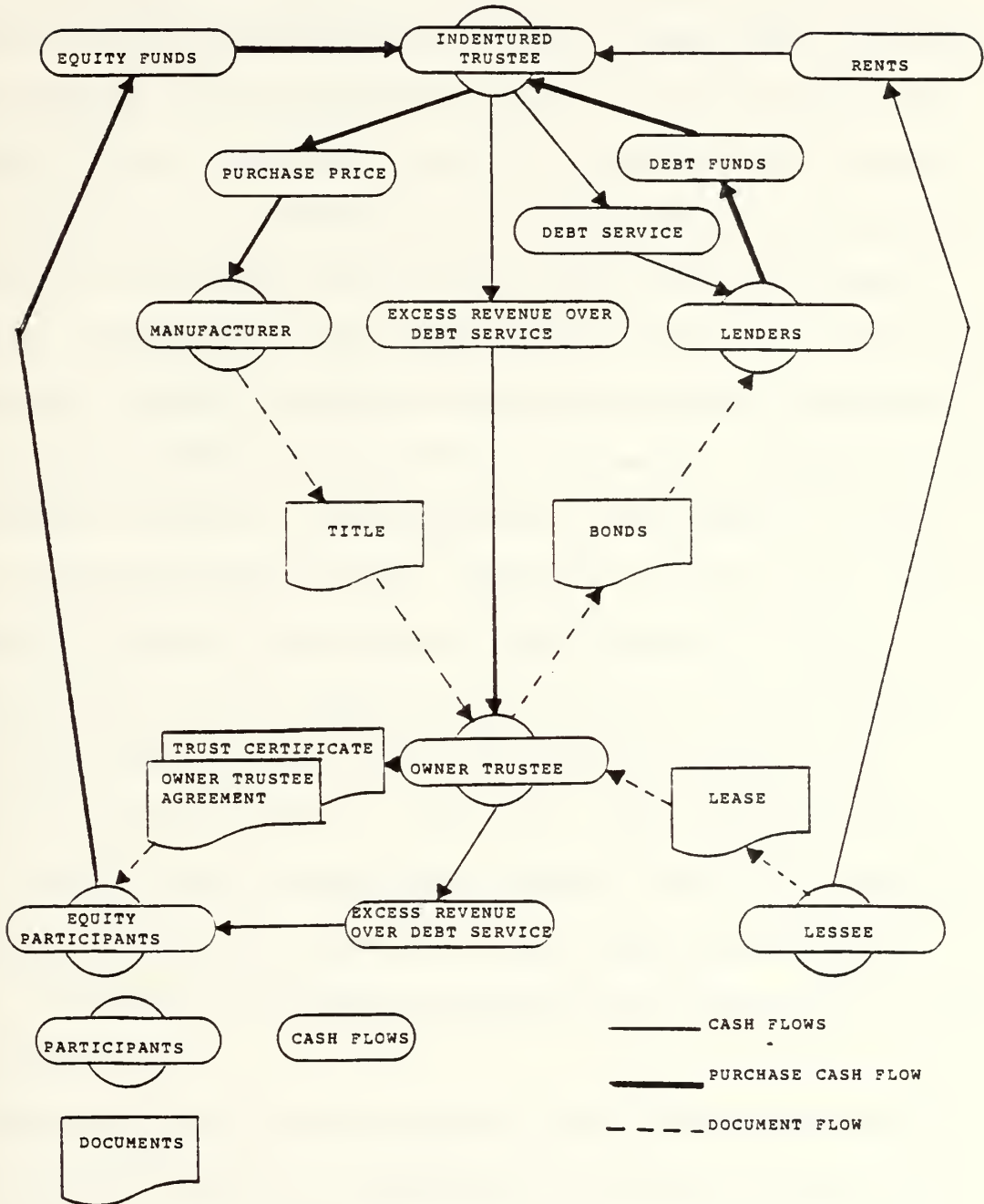


Figure 2-3

portion of the financing of the asset. In general, approximately 20 to 30 percent of the purchase price of the asset is provided by equity funds; the remaining 70 to 80 percent is provided from some other financing institution, usually a consortium headed by a bank. Using the leveraged lease vehicle for the financing of a U.S. flag vessel (any merchant of U.S. registry), seven (7) parties are involved. The first party is the charterer, a substantial institution of better than average size, with a long term requirement to move a product from one location to another. An example could be a chemical company moving raw materials purchased in a foreign country to the United States for processing in its production plant. The Charterer (the lessee) usually holds a strong credit rating, comparable to AA or AAA from Moody's or Standard and Poors. "The charterer is the primary credit on the agreement and agrees to pay for the use of the vessel over a long term period whether the vessel is in use or not". [Ref. 10] These payments are often called 'Hell or Highwater payments' because operating circumstances have no effect on their requirement to be paid. In effect the lessee guarantees the financing of the vessel [Ref. 5].

The second party is the equity participant (the lessor) who for tax purposes is considered the owner of the vessel. To qualify as owner the 20% minimum investment provided by the lessor must come from equity funds, not debt. By

holding the title to the vessel the equity participant can apply the benefits of the investment tax credit and accelerated depreciation for the entire cost of the vessel to its existing profits and shelter them in the early years of the lease agreement, (i.e., the lessor is able to leverage 100% of the tax benefits of ownership against only a true investment of approximately 20%)

[Ref. 10]. A sinking fund is established to ensure early gains are available to assist in the later years of the lease when the deductions are no longer available.

Finally, when the lease expires, the equity participant can benefit from the residual value of the asset. However, a lease with a residual at any material amount above scrap value is usually not expected.

The third party in the leveraged lease is the supplier of the debt funds required to provide the remaining balance of the purchase price of the vessel, known as the debt participant or lender(s). Generally, the debt participant is an aggregation of participants headed by a major bank or financing institution. (Morgan Guaranty Trust and General Electric Credit Corporation are frequent debt participants.) The percentage of the purchase price to be supplied by the lenders is 70 to 80 percent of the original cost of the asset and is non-recourse to the lessor. Defined in the context of the lease, non-recourse debt relieves the equity participant from any liability to the

lenders in the event the charterer defaults with respect to the lease. (The lessor is still at risk for his own equity investment.) Essentially, the charterer is the primary credit for the lease [Ref. 10]. Additionally, the lender's loan is secured by a first lien on the equipment, and an assignment of rental payments. The lender would look to the credit worthiness of the lessee as well as the value of the equipment to be leased for the security of the loan. [Ref. 10]

The fourth participant is the owner trustee. By engaging an owner trustee, the lessor is insulated from liability on the bonds issued to the debt participants, the lessor avoids having to identify these liabilities on his balance sheet and avoids any regulatory considerations involved in the issuance of the secured bonds.

The fifth participant is the indentured trustee. The indentured trustee maintains a relationship with the lenders analogous to the relationship between the lessor and the owner trustee. It is the responsibility of the indentured trustee to hold the security interest for the benefit of the lender. The indentured trustee receives the rental payment from the lessee which he distributes appropriately to the lender(s) and to the lessor via the owner trustee [Ref. 9]. In a sense the indentured trustee may be thought of as an honest broker, in that all of the monies involved in the transaction flow through his hands at one time or another.

The sixth party is a ship operating company, also known as the Bareboat Charter or Offeror. The operator is charged with all of the functions involved in operating the vessel during the lease period. [Ref. 10]

The seventh party, although not a member of the leveraged lease transaction is the shipyard that will construct the vessel to the specifications of the lessee.

"In some cases, the operator and shipyard are not part of the arrangement in any form. This occurs when the charterer is able to operate the vessel directly or when the financing is undertaken for an existing vessel."

[Ref. 10] Our subject, the TAKX leveraged lease, involves the new construction or immense retrofitting of the ro-ro vessels. Therefore, because it is essentially a new construction vessel, and the unusual structure of the contract between the U.S. Navy is important in assuring the availability of various tax benefits, the shipyard and offerer will be included as members of the transaction.

Figure 2-4 depicts graphically the flow of funds between the parties involved in a leveraged lease in the private sector, and indentifies several of the more crucial documents related to the financing. The heavy, dark lines originating from the lessor and lenders delineate the original funding required to purchase the vessel from the shipyard. This transaction is processed by the indentured trustee with the title passing from the shipyard to the

DIAGRAM OF LEVERAGED LEASE OF A U.S. FLAG VESSEL

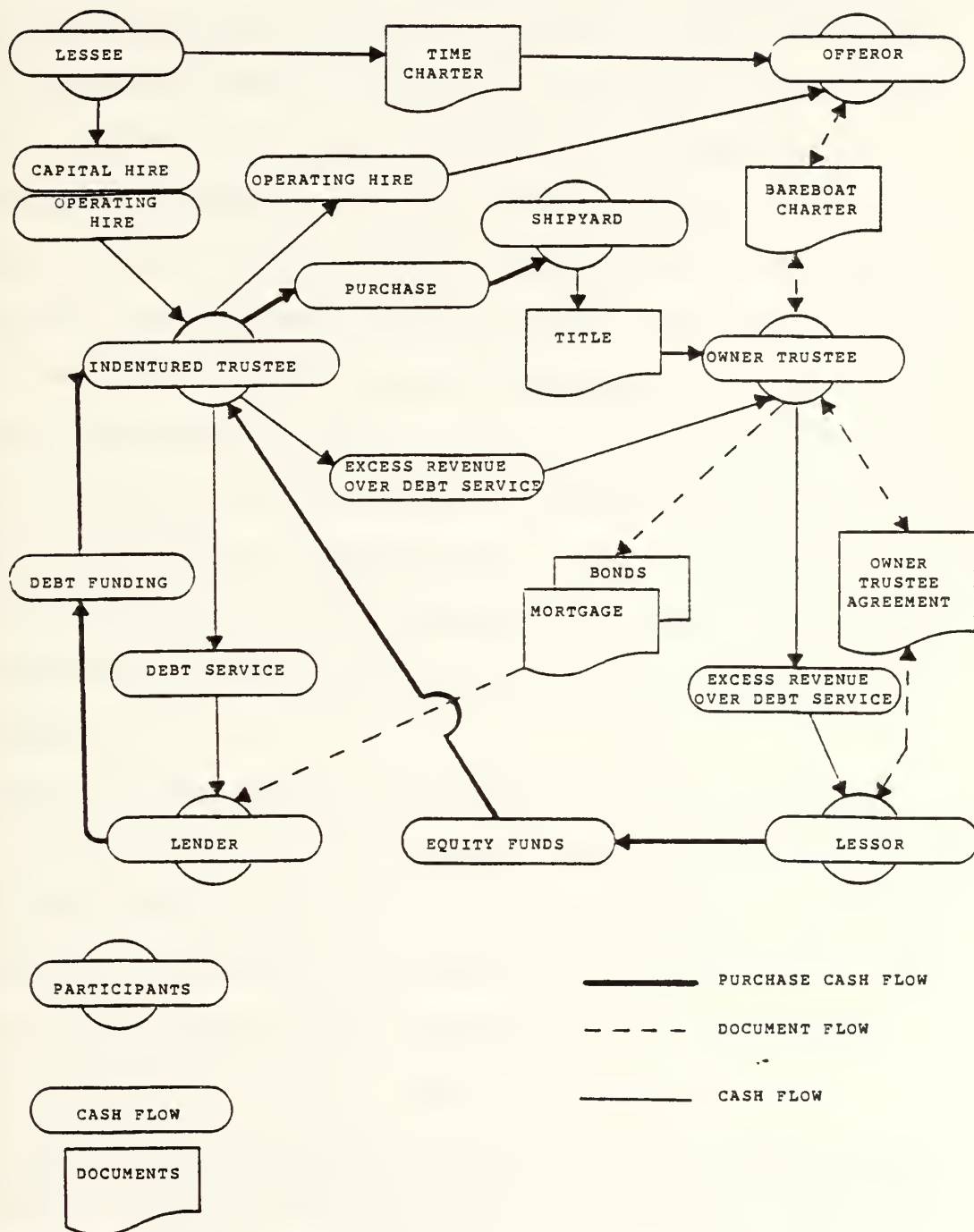


Figure 2-4

owner trustee. The owner trustee issues the mortgage and bonds to the lenders to properly document thier lien and collateral. The owner trustee also issues trust certificates to evidence the ownership of each equity participant and establishes the bareboat charter with the ship operating company (offerer). The lessee holds a time charter agreement with the offerer to set down the operational requirements of the vessel. However, the lease payments consisting of two parts (the capital hire and the operating hire) is made directly to the indentured trustee. The indentured trustee transfers the operating hire to the offerer, services the debt for the bonds held by the lenders, and provides the excess of revenue over debt service to the owner trustee [Ref. 11]. After payment of trustee fees and any other expenses, the owner trustee pays the remainder of the capital hire payment to the equity participants.

The leveraged lease is attractive to the equity participants for numerous reasons. First, tax benefits are gained from the entire value of the vessel even though the equity portion invested is only 20 to 30 percent. In Senator Howard Metzenbaum's testimony before the Senate Finance Committee, July 19, 1983, he stated,

"In 1981, for example, General Electric earned \$1.6 billion in profit, but bought so many tax breaks that it actually received a \$100 million tax refund." [Ref. 12]

The lessor, as owner, of the vessel is required to include in its taxable income any rental income received

(the portion of the capital hire that eventually flows down to him) but he is also entitled to recover the cost of the property through depreciation deductions under the Accelerated Cost Recovery System (ACRS) enacted under the Economic Recovery Tax Act of 1981 (ERTA) [Ref. 5]. Under ACRS, cost recovery deductions are taken for five years for the cost of the vessel, even though the useful life is 25 years longer. This is a significant tax advantage over previous methods of accelerated depreciation in which the depreciation expense had to be spread over the entire useful life of the asset prior to ERTA. Table 2-1 presents the depreciable charges per year allowed under ACRS. Another primary benefit to the equity participant occurs from the Investment Tax Credit (ITC), which is a reduction of taxes to businesses purchasing capital assets. In effect this allows the lessor to claim a specified percentage (i.e., 10%) of new capital investment as credit against income taxable in the current year. The ITC was granted under legislation designed to encourage firms to invest in new assets and stimulate the economy and create new jobs. The following example is provided below to illustrate the ITC and ACRS effect in year one of the lease.

TABLE 2-1
ACRS DEPRECIATION SCHEDULE

| YEAR | PERCENTAGE |
|------|------------|
| 1 | 15% |
| 2 | 22% |
| 3 | 21% |
| 4 | 21% |
| 5 | <u>21%</u> |
| | 100% |

Assumptions:

Firm A (eventual lessor) invests \$200,000 equity funds to purchase a \$1,000,000 vessel.

Investment Tax Credit = 10%

Taxes originally due = \$1,500,00

Marginal Tax Rate = .46

Example:

Year 1

| | |
|--|----------------|
| Taxes originally due | \$1,500,000 |
| Less ITC 10% | <u>100,000</u> |
| | \$1,400,000 |
| Less taxes saved due to to depreciation *see table 2-2 | <u>69,000</u> |
| TAXES DUE | \$1,331,000 |

This example highlights the fact that with only a \$200,000 investment the lessor can reduce taxes by \$169,000 in the first year alone. Table 2-2 depicts tax savings for all five years that ACRS would apply. In each of the first five years the overall tax burden of the lessor is reduced by the percentage applicable under ACRS.

The charterer (lessee) basically gains two benefits. One, the charterer does not have to raise the capital to finance the vessel, only to make regular rent payments over the life of the agreement. If, for example, the charterer already has a full capital budget, then leasing allows use

TABLE 2-2
ACRS DEPRECIATION TABLE

| YEAR | DEPRECIATION | TAX SAVINGS |
|------|---|--|
| 1 | $1,000,000 * .15 = 150,000$ | $(* .46) = 69,000$ |
| 2 | $1,000,000 * .22 = 220,000$ | $(* .46) = 101,200$ |
| 3 | $1,000,000 * .21 = 210,000$ | $(* .46) = 96,600$ |
| 4 | $1,000,000 * .21 = 210,000$ | $(* .46) = 96,600$ |
| 5 | $1,000,000 * \underline{.21} = \underline{210,000}$ | $\underline{(* .46)} = \underline{96,600}$ |
| | 1.00 1,000,000 | 460,000 |

of additional capital assets. Additionally, from the lessee perspective leasing would match the consumption of the asset with its use. Two, the charterer may not desire the benefits of ownership tax credits due to his own low tax bracket. However, via the leveraged lease connection to an equity-lessor in a 46% range, the lessee can expect some of the leveraged lease savings to be passed onto him, and thus achieve some measure of the tax benefits without actually owning the asset.

D. TAX EXEMPT LEVERAGED LEASING (TELL)

It was the intent of the Federal government to stimulate business growth with the adoption of ERTA, 1981. An unintended consequence of this legislation has provided a new source of funding to State and Local Governments, universities and other tax-exempt entities by using the tax exempt leveraged lease. Basically, state and local governments are using their ability to issue tax-exempt bonds and the tax advantages of a leverage lease in a combined way to decrease their cost of capital. [Ref. 13]

There are two primary ways for a non-federal public entity to decrease it's cost of capital via a leveraged lease. In the first instance, industrial development bonds (IDBs) are issued in behalf of the lessor to finance the sale of public property to the lessor. The capital generated by the sale of IDBs is utilized by the lessor to

purchase the public property. The lessee immediately leases back the property at a rent below the normal market value of the asset because part of the tax advantages (i.e., negative tax flow) accruing to the lessor are forwarded to the lessee. The proceeds of the sale could be used by the State Government (lessee) to purchase taxable bonds, which yield a higher rate of interest than the tax-exempt bonds, and the interest gained can then be used to cover rental payments, meet other current expenses, and provide a sinking fund to repurchase the property at the end of the lease. Such arrangements at this time have not been tested under the anti-arbitrage rules which prohibit the issuance of tax-exempt bonds for the expressed purpose of purchasing taxable securities yielding a higher rate of return. [Ref. 13]

The second example enables state and local governments finance major capital projects. To initiate this financing, a municipality sells a public building to private investors and simultaneously leases it back on a long term basis for continued use. The municipality then makes lease payments to the investors. The investors, in turn, make a downpayment and contribute over a five year period equity equal to 25-30 percent of the sales price. This infusion of equity radically reduces the rents in the first five years. The balance of the sales price is again financed by IDBs issued on behalf of the lessor. The sale

proceeds then finance the intended capital investment. As described earlier, in purchasing the facility the private investors obtain the tax benefits of ownership. The subsidized base payments during the initial five years are a reflection of these benefits. Lease payments represent the government's unit cost of financing. In reducing the magnitude of the lease payments, TELL slashes the government unit's effective borrowing cost below the issuer's current tax-exempt rate. [Ref. 13]

The above discussion of TELL provides a simple basis for the delineation of how IRS policy can make leveraged leasing appealing. The following discussion of FITELL introduces the added complexity of evaluating a leveraged lease when the Treasury Department and the lessee (i.e., a federal agency) are one entity.

E. FEDERALLY INVOLVED TAX EXEMPT LEVERAGED LEASING (FITELL)

Prior to the Economic Recovery Act of 1981 (ERTA) it was always more expensive for a government agency to lease an asset for its entire life than to purchase it. "Since leasing is merely a technique for financing the purchase of a capital asset, the government agency incurred lower costs by purchasing. Its implicit cost of funds was lower than that paid by a private leasing company, which would have to pass on the higher interest costs in its lease fee charged." [Ref. 14]

However, with the passage of ERTA, and its accompanying ACRS and ITC deductions, a lessor could lease an asset to an agency at a more favorable rate than a standard lease would allow if some of the cost reductions were passed on in the rent charged. Therefore, with the purchase of noncombatants virtually doomed in Congress the Navy looked for alternative ways of procuring the necessary hulls and leveraged leasing was presented as a viable alternative in several studies. The Navy pursued it as a way to fulfill the mission assigned to them. At this time Argent was engaged to advise the Navy on the intricacies of the transaction.

The TAKX transaction differs from the structure presented in Figure 2-4. Under Federal law for the lessor to qualify for the ITC and ACRS it must be demonstrated that the Navy has not acquired an ownership in the vessel. Additionally, given the lessor really owns the vessel for tax purposes and if the Navy's charter agreement were treated as giving the Navy the right to use the ship (a lease for the ship) rather than as right to transportation services (a service contract), this limitation would result in disallowance of the investment tax credit. This distinction was made by John Chapoton, Assistant Secretary, Tax Policy, Department of the Treasury testifying before the Senate Finance Committee. He said,

"Whether an agreement is a service contract or a lease agreement is an inherently factual determination. Under a lease agreement the lessor generally transfers possession and control of the property to the lessee for a stated term, and the lessee is responsible for the day-to-day operation of the property. In contrast, under a service agreement, the party who receives the services from the property may be able to direct when and where the property is to be used; but control, possession, and day-to-day operation of the property remain with the supplier." [Ref. 1]

In terms of the contract, the Navy is not engaged in a leveraged lease but a service contract for transportation services with the party described in Figure 2-4 as the offerer [Ref. 11]. The substance of the arrangement as depicted in Figure 2-4 remains the same, except that for IRS purposes the offeror becomes the lessee. The offeror may be thought of as an intermediary for tax purposes, while the Navy is still thought of as the true lessee. This distinction is made because of the determination of the capital hire rates. These rates are based on the credit rating of the lessee in this case the government. For the federal government to receive any type of lease more favorable than a purchase option the initial rates would have to be based on the full faith and credit of the government, not the offeror. The interest margins are so crucial that any lease rents based on a credit rating less than the government's would not be attractive to the Navy. Argent states the leveraged lease option involving the TAKX transaction involves an area where basis points (i.e., 1/100 of a percent) make a real difference over the long

run of the contract in terms of total cost to the government. In any event, the Navy will make the payment, as a "Hell or Highwater" rent, it is perhaps conceptually proper to think of the Navy as the lessee.

All the studies performed agree that the Navy benefits by the leverage leasing structure, however, charges by the Joint Committee on Taxation and the Government Accounting Office assert that the Navy is actually using the Treasury Department, via a negative tax flow, to subsidize its budget. Therefore, the total cost to the government as a whole is more than a comparable purchase, somewhat akin to TELL presented earlier.

The leveraged lease is a most complex financing arrangement. However, the theoretical arguments underlying this debate are even more complex. For example, one of the hardest points to examine is exactly which flows should be considered in a cost-benefit analysis. In the Argent study the following flows were considered:

- 1) At the Navy level there is the stream of capital hire payments for the 25 year useful life of the vessel.
- 2) At the Treasury level there is a series of cash outflows representing the revenue loss to the Treasury from the tax benefits realized by the lessor and a series of cash inflows representing the revenue gain to the Treasury from the taxes payable on income resulting from the charter transaction. Specifically, the components of the revenue loss are the investment tax credit, ACRS deductions, interest deductions on the long term debt, and amortization deductions for certain elements of vessel cost not included in the depreciable basis. Items which give rise to tax revenues are capital hire payments

received by the lessor, interest income received by the lenders, transaction expenses such as legal fees and fees paid to commercial and investment banks and other intermediaries involved in setting up the transaction, and earnings on tax deferrals (i.e., the so called 'sinking fund'). [Ref. 5]

At this point another question arises: is it fair to include the income tax paid by shipbuilders that were hired specifically to build the TAKX vessels, are these shipyard employee's tax contribution a deduction from the original lease cost? The frame of reference within which the flows and reflows are considered as relevant and their values for cost/benefit purposes becomes gray and is the conceptual heart of the problem. However, for example the GAO and the JCT, both argue that the tax paid on interest income received by the lenders and tax paid on transaction income received by lawyers, etc. would exist in the market place, with or without the TAKX and therefore are not relevant incremental costs allowable in the lease versus purchase analysis. Argent states that the revenue is directly attributable to TAKX and consequently is a relevant cost. In fact, if Argent's explanation is accepted, one could carry the discussion farther and farther away from the original TAKX first order flows to more macro or second order flows, or third order flows that could be argued have their origin with TAKX and therefore are seemingly relevant to the decision. In any event, the question of what should be considered first order flows, and how these flows impact the lease greatly affect the outcome of the analysis.

The proper rate at which to discount payments and receipts to determine their present value for the lease versus purchase analysis is another issue of controversy. OMB Circular A-76 and the Economic Analysis Handbook, DOD Instruction 7310, state that the capital should be considered directly funded by revenue and should be discounted for analysis purposes at 10%, however, the JCT in its study assumed that the entire TAKX financing would be debt funded (funded by Treasury Bill sales) at the prevailing interest rate of 12%. We suggest that the financing of the TAKX in reality would be funded by some mix of revenue and debt sources, as part of the entire Federal budget. [Ref. 5]

Summarizing, the leveraged lease is a very hard transaction to analyze due to the numerous perspectives from which it can be viewed. There are theories to discuss and differing cash flows to consider.

As noted in the introduction, Chapter 3 will present the issues surrounding the analysis of the cash flows.

III. CASH FLOWS

A. BACKGROUND

As an example of the cash flows in a FITELL, we used the Navy's TAKX program to demonstrate the complexity of the transaction, and as a point of departure to discuss the case of the lease alternative. In this chapter a detailed description of the relevant cash flows is presented to gain an understanding of this unique lease transaction in which the charterer (or lessee) is an agency of the Federal Government. Federal involvement introduces tax flows and more importantly reflows into the cash flow stream and the valuation of these presents the analyst with the most difficulty.

TAKX, as the largest leveraged lease transaction ever put together, is noteworthy for that reason alone. Add to that some uncertainty about the true cost and the transaction then takes on the awful possibility of a multi-billion dollar mistake. It has generated intense (and somewhat belated) interest in Congress and spawned several studies which come to different conclusions about the advantages of such a transaction relative to the purchase alternative. The major studies, which do not reach the same conclusion about the two alternatives, are discussed below and referenced throughout.

The Coopers and Lybrand study reviewed the financial implications of a hypothetical transaction like TAKX (Analysis of the Convert and Charter Program, 11 February 1982). Argent Group Ltd. produced a series of reports referenced throughout this thesis. These reports analyzed hypothetical lease structures initially and then actual responses to the Requests for Proposal. Argent has been under contract to the Navy to provide leveraged lease expertise to the Military Sealift Command (MSC), contracting authority for the TAKX. The studies by Coopers and Lybrand and Argent concluded that under present economic and tax conditions the Government would benefit from participation in a leveraged lease transaction.

The Institute for Defense Analysis (Lease versus Purchase of Naval Auxiliary Ships (Draft, October 1982) concluded in a draft report that substantial cost savings were possible through the leveraged lease alternative. A final report due in November 1983 is supposed to confirm the conclusion of the draft report that under certain conditions leasing is better than the purchase alternative.

The Joint Committee on Taxation (JCT) prepared a report (Tax Aspects of Federal Leasing Arrangements, 25 February 1983) which found leasing more costly to the Federal government than purchasing. The General Accounting Office (GAO) agreed with the JCT in an analysis of long term leases (Improved Analysis Needed to Evaluate DOD's Proposed Long-Term Leases of Capital Equipment, 28 June 1983).

The studies reach different conclusions from essentially the same data. This chapter will highlight the differences in the relevant cash flows of the major studies done by Argent and JCT. Starting with a discussion of the difficulties inherent in evaluation of FITELL we will then address the major items within the studies that create the disparate results.

B. EVALUATION PROBLEMS WITH FEDERALLY INVOLVED TAX EXEMPT LEVERAGED LEASING (FITELL)

All of these studies at some point mention the lack of any definitive guidance to evaluate a capital lease. GAO made the following statement in their conclusions:

"Our suggested statutory language includes some general requirements for agencies to conduct a complete lease versus purchase comparative cost analysis when considering long-term leases. More specific guidelines, however, should be promulgated by the Office of Management and Budget (OMB), and in a letter dated May 19, 1983, we suggested that the Director issue such guidance." [Ref. 3]

Argent blamed the major differences between their conclusion and the one reached by JCT on the lack of guidance and concluded, "Since there was only limited guidance in conducting a lease versus purchase analysis for the government's purposes, it is no surprise that the JCT Staff and Argent independently selected two different sets of alternatives to compare." [Ref. 5]

The lack of a model to guide the analysis presented a major obstacle to each analytical effort. It was overcome

by the development of unique models which, because of the different critical assumptions, produced significantly different results.

C. CONCLUSIONS OF THE MAJOR STUDIES

The analysis presented by Argent showed leasing to be a better alternative than purchasing for both the Navy and the Government across a wide range of assumptions. The sensitivity analysis conducted by Argent included a variety of discount rates, with and without the Investment Tax Credit (ITC), various debt to equity ratios and long-term debt rates. Argent relied, primarily, on a very sophisticated commercial leasing evaluation program called Lease Analysis System (LAS). The primary output of the program is a minimum lease payment (or schedule of various levels of payments) that meet certain parameters, such as long-term debt rate and return on owner's equity.

From the lease payment (or Capital Hire payment) schedule and other relevant cash and tax flows, Argent determined leasing to be significantly less expensive on a net present value (NPV) basis than purchasing. On a per ship basis, Argent concluded that leasing saved \$29.3 million (NPV) over the purchase alternative (see Table 3-1). This is a 16.1% saving per ship or \$380.9 million for the entire program. [Ref. 5]

On the other hand, the Joint Committee on Taxation (JCT) evaluated the same information and came to a

TABLE 3-1

CHANGE IN CAPITAL COST AS A RESULT OF LEASING
 (in millions of dollars NPV; discount at 10.25% annually)
 (based on data from MAERSK, vessel number three)

| <u>JCT</u> | <u>NAVY</u> | <u>TREASURY</u> | <u>GOV'T</u> |
|-----------------------------------|-------------|-----------------|--------------|
| COST, NEW SHIP | -178.2 | | -178.2 |
| RENTAL PAYMENTS | 131.7 | -59.2 | 72.5 |
| TAX BENEFITS/ACRS | | 81.2 | 81.2 |
| COST USED SHIP | 9.5 | -4.4 | 5.1 |
| TAX BENEFIT INTEREST DEDUCTION | | 39.5 | 39.5 |
| TAX BENEFIT AMORTIZED FEES | | .7 | .7 |
| | -37.0 | 57.8 | 20.8 |

[Ref. 6]

ARGENT

| | | | |
|-----------------------------------|--------|-------|--------|
| COST, NEW SHIP | -182.4 | | -182.4 |
| RENTAL PAYMENTS | 131.7 | -59.7 | 72.0 |
| TAX BENEFITS | | 80.4 | 80.4 |
| COST USED SHIP | | | |
| TAX BENEFIT INTEREST DEDUCTION | | 39.7 | 39.7 |
| TAX BENEFIT AMORTIZED FEES | | .7 | .7 |
| TAX PAID INTEREST INCOME | | -39.7 | -39.7 |
| | -50.7 | 21.4 | -29.3 |

[Ref. 5]

different conclusion. The basic premise in the JCT analysis is that the cost to lease must be greater than purchase because the government enjoys the best credit rating and can, thus, borrow funds for less than anyone else. The lender in the leveraged lease will require a higher rate of interest on funds lent to the TAKX venture because there is a greater risk than if those funds were "lent" to the federal government in the form of a Treasury note or bond. Additionally, transaction costs make the lease an inherently more expensive alternative.

"Therefore, when the government leases, it compensates the lessor for greater financing costs than the government would have borne had it borrowed funds and purchased the ship. Similarly, to the extent that extra fees are involved in arranging a sale and lease, and not merely a sale, the government compensates the lessor for expenses that the government would not have borne had it purchased the ship." [Ref. 6]

JCT found the leasing alternative to be \$20.8 million (11.7%) more expensive per ship than the purchase alternative. GAO using similar reasoning came to essentially the same conclusion as JCT. [Refs. 3 and 6]

The differences between the two major studies (JCT and Argent) illustrate the inherent difficulty in analysis of FITELL. The true cost of the lease is subject to many assumptions about market reactions, tax reflows and long-term investment possibilities. From their different assumptions Argent and JCT developed models which produced the disparate results above. The basic assumptions that

lead to the different conclusions will be discussed along with a description of the major cash flows.

D. DIRECT AND INDIRECT CASH FLOWS

The major payment throughout the life of the lease is the Charter Hire payment which is comprised of a Capital Hire Payment and an Operating Hire Payment. The Operating Hire Payment represents the cost to the Navy to compensate the operator for the services rendered and is considered an expense under either the purchase or the lease alternative so is not discussed further. The Capital Hire payment is the major outflow of funds from the Federal Government but actually represents only a portion of the true cost. It is necessary to combine the direct outflows with other indirect cash flows (such as tax benefits and deductions) to determine the full cost. Similarly the Capital Hire Payment repays the equity and debt participant for the risk assumed in the transaction but must be considered together with the other cash flows and tax benefits to show the total compensation. Each cash and tax flow will be discussed.

E. TAKX CASH FLOWS

Specific cash flows of the TAKX financing arrangement are simplified in the following illustration by elimination of the Trustees since they are merely extensions of the major participants and not relevant to the evaluation of

the cash flow. The major pre-tax cash flows are shown in Table 3-2. Argent and JCT agree on the results of a basic pre-tax cash flow analysis which shows a leveraged lease to be advantageous to the Navy. As the figures in Table 3-1 show, Argent estimates on-budget expenditure savings of approximately \$50 million per ship and JCT estimates only \$37 million. The difference is primarily due to differences in treatment of residual value and the cost of a new ship.

In the pre-tax Navy-only analysis the cash flows are similar to any simple lease. Lease payments are made over a period of time to secure the use of an asset. In the simplified version the amount of the lease payments would be set to provide the owner with a competitive return on investment after covering the payments due a lender if one is involved.

The leveraged lease, however, takes full advantage of the tax credits available to the owner and return on investment is computed with the tax effect fully applied. The net result is the Capital Hire the Navy must pay under the service contract is substantially reduced not only by the the tax incentives received the the lessor but also by the earnings of the sinking fund to which the tax benefits have theoretically been applied.

Table 3-3 lists the tax benefits and liabilities (potential reflows to the Treasury) which are considered to

TABLE 3-2
PRE-TAX CASH FLOWS

(+ = INFLOW, - = OUTFLOW)

| <u>PARTICIPANT</u> | <u>CASH FLOW</u> | |
|--------------------------------------|---|--|
| | <u>ONE TIME</u> | <u>RECURRING</u> |
| NAVY | -RESIDUAL VALUE | -CAPITAL HIRE |
| LESSOR/OWNER (EQUITY PARTICIPANT) | -PURCHASE PRICE (DEBT & EQUITY) +RESIDUAL VALUE +LOAN FROM LENDER -TRANSACTION FEES | +CAPITAL HIRE PAYMENT -PAYMENT ON LONG TERM DEBT |
| LENDER (DEBT PARTICIPANT) | -LOAN TO LESSOR | +PAYMENT ON LONG TERM |

TABLE 3-3
AFTER TAX CASH FLOWS
(+ = INFLOW, - = OUTFLOW)

| <u>PARTICIPANT</u> | <u>CASH FLOW</u> | <u>TAX FLOW</u> |
|---|--------------------------------------|---|
| NAVY | -RESIDUAL VALUE * | |
| | -CAPITAL HIRE | |
| LESSOR/OWNER (EQUITY PARTICIPANT) | -PURCHASE PRICE * (DEBT & EQUITY) | +ITC * |
| | +LOAN FROM LENDER * | +ACRS |
| | -PAYMENT ON LONG TERM DEBT | +DEDUCTION FOR INTEREST PAYMENT ON LONG TERM DEBT |
| | +CAPITAL HIRE PAYMENT | -TAX PAID ON INCOME FROM CAPITAL HIRE PAYMENT |
| | +EARNINGS ON SINKING FUND | -TAX PAID ON EARNINGS OF SINKING FUND |
| | +RESIDUAL VALUE * | -TAX PAID ON RESIDUAL VALUE |
| | -TRANSACTION FEES * | +AMORTIZED TRANSACTION FEES |
| LENDER (DEBT PARTICIPANT) | -LOAN TO LESSOR * | |
| | +PAYMENT ON LONG TERM DEBT | -TAX PAID ON INTEREST EARNED |
| TREASURY | | -ITC * |
| | | -ACRS |
| | | -DEDUCTION FOR INTEREST PAID |
| | | +TAX PAID ON INCOME FROM CAPITAL HIRE PAYMENT |
| | | +TAX PAID ON INTEREST EARNED |
| | | +TAX ON EARNINGS OF SINKING FUNDS |
| | | -AMORT TRANSACTION FEE |
| | | +TAX PAID ON RESIDUAL VALUE |

(+ ONE TIME FLOW)

be part of the transaction. Figure 3-1 displays the recurring cash and tax to show the direct payments made by the Navy (Charter Hire) and owner (debt service) and also the tax flows that theoretically provide the means for both the government and the owner to benefit from this transaction. The total cost to the government of the two alternatives is shown in Table 3-4 which is the basic model used to address the specific cash and tax flows in the following sections.

1. Capital Hire/Tax Paid on Capital Hire

The Navy is obligated by the Time Charter Agreement to make Capital Hire payments on acceptance and delivery of the vessel. This payment is the largest outflow of funds and represents an amount calculated to provide repayment of the long-term debt obligations to the bondholders as well as sufficient return to the equity participants. The Capital Hire payment schedule for TAKX takes into full account the tax benefits anticipated to be available to the lessor owner. But there are protections to the owners included in the final computation of the Capital Hire Rate. Final computation is done after placement of permanent financing and at that point, if all financial uncertainties have been resolved, a schedule of payments is constructed and agreed to by all parties. This is done just prior to the delivery of each ship.

Since it is designed to service the long-term debt portion of the financing and provide return on investment

MAJOR RECURRING CASH AND TAX FLOWS

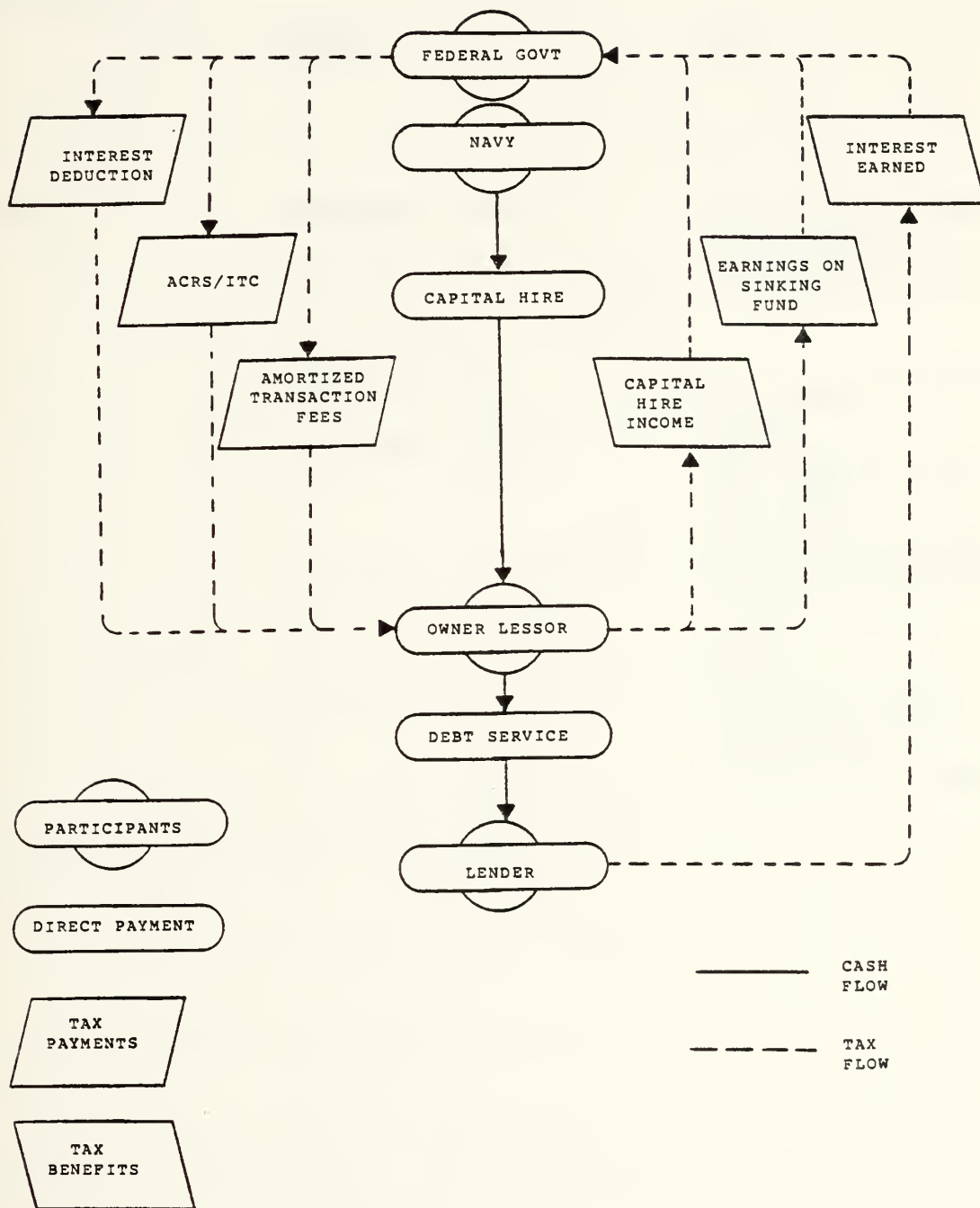


Figure 3-1

TABLE 3-4
COST TO GOVERNMENT
OF TAX ALTERNATIVES

(+ = INFLOWS, - = OUTFLOWS)

| <u>ALTERNATIVE</u> | <u>COST</u> | |
|--------------------|----------------------------------|--|
| | <u>DIRECT</u> | <u>TAX</u> |
| PURCHASE | -PURCHASE PRICE * | +TAX PAID ON DEBT PORTION OF PURCHASE PRICE |
| LEASE | -CAPITAL HIRE -RESIDUAL VALUE | +TAX PAID ON CAPITAL HIRE +TAX PAID ON RESIDUAL VALUE * -TAX PAID ON INTEREST EARNED +TAX ON EARNINGS OF SINKING FUND -ITC * -ACRS -DEDUCTION FOR INTEREST PAID -AMORTIZED TRANSACTION FEES |

(* ONE TIME FLOW)

for the equity participants the Capital Hire payment is subject to adjustment to account for changes in many of the cost factors that were used in the original estimates of total cost of debt and amount of equity. Also assumptions made about the degree and timing of the tax benefits are also subject to change and would force an adjustment of the Capital Hire Rate. Some of the cost factors which, if changed from those used in the original calculation of Charter Hire, would cause adjustment to the rate are:

- (a) Basic Capitalized Cost. Includes Construction or Purchase/Conversion costs plus interim loan costs, legal fees and other costs (spare parts, containers, etc.)
- (b) Investment Tax Credit. Owner's ability to deduct from taxes 10% of the full amount of Basic Capitalized Cost.
- (c) Permanent Financing Rates. Interest rates calculated to be equal to 11% per annum with specific amortization schedule.
- (d) Depreciable Basis. The basis from which the annual depreciation amount is computed. Under ACRS 97.5% of Basic Capitalized Cost used as basis. TEFRA 1982 proposed 92.625%.
- (e) Delivery Date. Vessel delivery dates affect tax liabilities of the owners/lessors. Adjustment to the delivery date may include tax effect.
- (f) Debt/Equity Ratio. Calculated to be 57%/43% in setting original Capital Hire Rate. To be adjusted to reflect the actual ratio.
- (g) Nominal After-Tax Economic Yield. Set in the computation of Charter Hire at 11.745% per annum.

As can be seen the owner/lessor is protected against major economic loss and is effectively guaranteed

an after tax rate of return of 11.745% by virtue of an agreed process to adjust the Capital Hire Rates to protect that rate of return [Ref. 15]. The two aspects of the Capital Hire payments which have caused most comment are the tax indemnity for the ITC and the "Hell or High Water" payment clauses.

a. Tax Indemnity

The indemnification of the owner against loss of ITC has been criticized for giving the owner extraordinary protection against an unfavorable tax ruling. JCT describes these provisions as "risks" the Navy has assumed (rather than the owner). A different view is provided by Everett Pyatt, Assistant Secretary of the Navy (S&L).

"All that a tax indemnity does is to provide that if those expected tax benefits become unavailable because of the structure of the transaction or because of some actions taken by the Navy which were not contemplated by the agreements, the Navy will compensate the lessor for the loss, so that the lessor's return will remain as planned. The most significant -- and overlooked -- point is this: if the Navy should ever have to pay an indemnity, it merely means that the Treasury has not had as much of a revenue loss as was contemplated, and that the entire amount paid by the Navy simply ends up in the Treasury." [Ref. 4]

If the contracts did not contain such indemnities the Charter Hire payments would likely be set at a higher level, to reflect the greater risk. If the tax benefits are then available the owners collect a windfall and the Navy and the Treasury both lose.

b. "Hell or High Water" Payments

Payments are required to be made semi-annually and are due no matter whether the ship is in a Reduced Operational Status (inactivity at the Charterer's direction) or in an Off Hire status due to inability to perform the mission because of an event that prevents the full working of the vessel. This protection to the debt and equity participants is known as "Hell or High Water" payments and is not unusual in a leveraged lease transaction.

"Also the leveraging effect is achieved without much risk since the charterer takes the exposure on the financing and use of the vessel. Even if the vessel is unable to operate the charterer must continue to make lease payments." [Ref. 10]

Capital Hire Payments are included in the Navy's budgets as a Navy Industrial Fund annual item in the Operation and Maintenance, Navy (OMN) appropriation. This has caused concern in Congress because the payments are characterized by some as long-term obligations that should not be included in a revolving fund. Also Congressional review of OMN is not as detailed as other appropriations such as Ship Construction Navy (SCN). The visibility of a major program like TAKX is lessened in the OMN appropriation, and Congress has expressed concern about the level of oversight exercised in TAKX and whether all appropriate information was available during the budget approval process. We will discuss this issue in a later section.

The Navy's annual payment of Capital Hire per ship is expected to be approximately \$15 million per year for the first 12.5 years and then \$18 million for the last 12.5 years of the contract. The amount is calculated on a per ship basis and is not fixed until all details of the long-term financing are known.

The tax reflow to the Treasury from income taxes paid on the Capital Hire payment is the annual income times the appropriate marginal tax rate of the owners. It is calculated in the major studies to be approximately \$59.7 million (NPV) based on the 25 year stream of Charter Hire payments which has a present value of \$131.7 million. The effect of the tax reflow is to reduce the cost to Government of the Charter Hire payment to \$72.0 million in present value.

2. Accelerated Cost Recovery System (ACRS)/Investment Tax Credit (ITC)

As owner of the vessel the equity participants are entitled to significant tax benefits in the form of Accelerated Cost Recovery System (ACRS) deductions and Investment Tax Credits (ITC). The ITC is a reduction of the tax liability after an investment is made in a qualified capital asset. The reduction is currently set at 10% of the amount invested. The ACRS allows a qualified capital asset to be depreciated over a much shorter period than normal depreciation allowances. This permits an

investor to recover the cost of a capital investment in as little as three years rather than over the full useful life of the asset.

The net present value of the ACRS/ITC tax benefits is greater than \$80 million per ship.

ACRS/ITC combined with the rental payments (Capital Hire) net to the equity participants a return sufficient to make a leveraged lease attractive. The depreciation tax shield under ACRS allows rapid recovery of the investment and provides a significant shelter for other income. Sheltered income is then available for reinvestment and a sinking fund method can be applied to estimate the long-term benefit to the owner of that reinvestment. [Ref. 16]

The current law allows ACRS deductions of 15, 22, 21, 21 and 21% of 97.5% of the base cost of the ship over a five year period. A recent change contained in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) effective in 1985 requires the depreciable basis to be reduced by one-half the amount of the ITC claimed by the lessor and changes the annual depreciation allowance.

As described in the previous section if a revision to the tax law does cause a reduction in the depreciable basis the Charter Hire payments are adjusted to preserve the agreed rate of return. The Investment Tax Credit (ITC) is deducted directly from a corporation's tax liabilities usually in the first year of investment. The financial

incentive for corporations to make investments for capital goods is enhanced by the ITC and this stimulation of capital formation was exactly the intent of Congress when the ITC was voted into law in 1962. TAKX, despite other criticism, does comply with the intent of the ITC by encouraging the formation of capital assets. The tax incentive provided by Congress is used as intended, only the Federal government is more actively involved than originally envisioned.

a. Tax Consequences of Ownership and Government Use Restriction

Two considerations are pertinent to the tax treatment of TAKX participants. Who is the owner of the asset? If the Navy is not the owner what is the nature of the contract with the owner/operator -- a contract to lease an asset or to purchase services? The tax benefits depend on the answers to these questions.

A basic assumption in the application of ACRS and ITC tax benefits to the TAKX is that the equity participant will be deemed the owner and therefore eligible for these deductions. The TAKX transaction is structured to insulate the Navy from the presumption of ownership but final determination will be made by the Internal Revenue Service (IRS). As described earlier the ruling on ownership to be handed down by the IRS will be based on the substance of the transaction rather than the form and if the Navy is

determined to have an ownership interest, the ITC and ACRS will not be available to the equity participants. The owner/lessor is not protected against that catastrophic risk.

"The Navy is not required to indemnify the shipowner for any loss of Federal income tax benefits attributable to characterization of the transaction as a conditional sale to the Navy." [Ref. 6]

Along with the loss of ITC also goes ACRS deductions and the owner will only be allowed normal depreciation allowances over the useful life of the asset.

If the equity participants are deemed to be the owners for tax purposes a further issue must be resolved concerning the government "use" restriction. An ITC is not allowed for property used by a governmental entity but is available where the government is merely purchasing services that involve that particular asset. In the latter case, the lessor is providing services to the government rather than use of the particular asset. The IRS has allowed ITC to be taken in cases in which an asset is used by the owner to provide a service to the government.

"...one court has held (and the Internal Revenue Service has ruled) that the investment credit can be claimed where the government unit essentially has contracted for a service to be provided by the owner of the equipment rather than for the use of the equipment itself." [Ref. 6]

In the form of the TAKX contract the Navy is purchasing space on a ship to transport cargo rather than using or leasing a ship directly. The structure of the

TAKX arrangement has the Navy in a service contract (Time Charter) with the Contractor and the Contractor in a lease with the owner (or owner trustee) for the bareboat charter of the vessel. The Navy, in the terms of the contract, has hired transport services from the Contractor rather than acquired an ownership or even "use" interest in the ship. [Ref. 5]

This point is under dispute. Others view the same contract as other than a "service" arrangement and claim that the Navy really has possessory interest in the ships. If that is shown to be the case in upcoming IRS rulings, the ITC may be disallowed. The Navy has indemnified the owners against the loss of the ITC which may be the outcome of the use restriction issue.

As a flow in the transaction the ITC is critical because it is applied as a direct reduction of income tax liability and is therefore a major factor in the rate of return calculation. The lessor is protected against loss of the ITC by the indemnification clause which automatically adjusts the Capital Hire payment the required amount to protect the 11.745% nominal after-tax return. Any payment by the Navy of increased Capital Hire to make up for lost entitlement to ITC will result in a direct reflow to the Federal Government. The reduction in tax credits of the lost ITC will cause the increased payment to flow back into the Treasury as increased tax

liability on the part of the owners. Theoretically, the net result to the Treasury of the increase in Capital Hire is essentially zero.

b. Sophisticated Market Argument

Argent also presents an interesting argument for elimination of the ITC/ACRS tax benefits as a cost to TAKX. It is based on the perception of the leveraged lease investors as a sophisticated group who, because of their opportunistic approach to investment markets, will find a means to claim equivalent tax benefits with or without the TAKX program.

This claim by Argent presupposes a small group of elite investors who are able to shelter and protect income regardless of TAKX. Since they are likely to have these benefits in either case Argent argues against assigning the cost of these benefits to TAKX.

Another view of the market, however, assumes the same sophisticated investors will add TAKX to their existing investment opportunities thereby increasing the total tax benefits claimed. JCT believes this will be the true market reaction and the tax benefits are therefore a proper incremental cost of the TAKX program.

c. Finite vs. Infinite Market Theory

The argument against charging tax benefits as a cost to TAKX also presumes a certain market reaction to a large debt offering. Argent argues that the leveraged

lease market is composed of a finite number of investors who have an understanding of such complicated lease arrangements. Only those investors or packagers of such debt who possess or have access to the requisite expertise would risk such large amounts of capital.

How the market reacts to increased opportunity will determine the proper amount of tax flow to consider as a cost of the program. If the market is finite there will be no expansion and as TAKX is accepted some other debt will be displaced. But the total tax benefits claimed from leveraged lease transactions remains the same regardless of TAKX.

On the other hand, if the opportunity to invest funds in leveraged lease transactions increases and the market expands to accept the new offerings Treasury revenues will decrease because of an increase in tax benefits claimed. As the market expands due to the entry of TAKX the incremental decrease in tax revenues should be a cost to the leasing proposal [Ref. 6]. However, if capital assets will be created by such investment the additions to employment, income and wealth can be argued as compensation for the lost tax revenue.

JCT obviously does not subscribe to the theory that tax benefits generated by TAKX are irrelevant costs to leasing since they would be enjoyed by sophisticated market investors who operate in a finite system of leveraged lease

transactions. Instead JCT argues that the leveraged lease market is not as finite nor as sophisticated as Argent believes but rather is expandable and would do just that to accomodate an attractive offering such as TAKX. JCT, therefore, believes the total tax loss to the Treasury would increase as a result of TAKX and the incremental increase in tax revenue lost is a legitimate cost to leasing.

d. Debt Market Displacement

In a finite market the entry of a large debt offering like TAKX can have two outcomes. One is to cause corporate plans to change and a course of action to be cancelled because of lack of funding from the specific, leveraged lease market. If this is the case, there is potential for the assignment of a "social cost" to the proposal that caused the displacement. In other words, TAKX could be seen to cause a project to be postponed, and the related benefits foregone would then be attributed as a cost to the TAKX program.

In a similar fashion, though, the purchase alternative may also be associated with a "social cost." The financing required to make the full price in a government purchase can be considered to have a tax revenue and a debt component. To the extent that the debt component competes with corporate or other financial offerings in a finite debt market, the cost of purchasing

could be increased by a "social cost" similar to that which is assigned to leasing but not necessarily of the same magnitude.

In the second possible outcome the displacement is not absolute, and Treasury revenues may in fact increase by the addition of TAKX to a finite leveraged lease market. This could occur because the debt is placed in some other part of the total debt market rather than foregone. The debt placement into a less tax advantaged segment of the market may cause tax revenues to rise. [Ref. 5]

As has been discussed, there is likely to be a significant difference between the amount of funds "borrowed" in a purchase and in a leveraged lease transaction. "Social cost" is a theoretical argument that does not appear to be quantifiable. None of the studies have attempted to assign a specific "social cost" to either alternative but mention it as a skeleton in the financial closet. The tax benefits remain in the analyses as a cost of leasing; in Argent's case presumably more from conservatism than firm conviction.

e. Corporate Investment Strategy

Corporations are committed to acquisitions and capital expenditures as a result of an evolving strategy that is founded on commitment to product lines, geographic locations, technologies, etc., and is not usually going to be altered by a financing decision. The acquisition and

financing decisions are usually separate and capital strategic expenditures are too important to be postponed if reasonably affordable financing is available as an alternative to what was originally thought to be a more preferable financial arrangement. The decision to acquire an asset or make a strategic move is usually made independent of the financing decision and from that point can take on almost a life of its own. Depending on the vitality of that life the project would not necessarily die but become a candidate for a different type of funding. The displacement might occur but would not be absolute as other debt offerings sought the next best alternate segment of the market. At some point though the total market would need to adjust to accommodate the increase which historically means an upward shift in interest rates until the market adjusts to equilibrium. [Ref. 16]

f. Long Term vs. Short Term Market Reaction

Because of the extraordinary expertise required to participate in a leveraged lease transaction those who actively participate in the market are rather limited. It is an imperfect market and entry involves knowledge of an unusually complex transaction. Additionally, those in the market are limited by their own strategic goals and are concerned with rationing their tax shelter to coincide with the limited tax liability of the parent company. Because of the various constraints on the portfolio as a whole an

investor might have reason to include a mix of lease structures that includes some less profitable but, due to timing of the tax benefits, beneficial to the portfolio as a whole.

"A leasing company must operate within various constraints; the most important constraint is the total level of tax shelter that can be absorbed. The availability of current taxable income to shelter is the scarcest resource for most large lessors. Exhausting this resource is the most common reason for major lessors curtailing lease activity. In industry jargon, the lessor is said to have 'run out of tax dollars'." [Ref. 17]

The leveraged lease is not necessarily the most profitable of the lease markets. A sophisticated investor will have a series of investments that coincide with the compliment the estimate of tax shelters needed in the future. The market mix is dependent on the flow of the investment and when in the course of the investment the shelter is available.

Leveraged lease market debt is not, therefore, the ultimate in tax sheltered investments. It has certain advantages but also risks and must compete with alternative long-term financing opportunities. Investors will not gravitate to the leveraged lease market just for TAKX per se, but will come for investment opportunities that produce returns over time commensurate with the perceived risk.

There is no doubt, however, that the availability of funds for leveraged lease tax sheltered investments would increase as more relatively attractive

opportunities were presented. Expertise would be acquired and the complexities overcome as soon as the leveraged lease market presents a more profitable alternative to presently available investments. The overall market reaction would be in the form of an upward-sloping supply curve reflecting the fact that at higher interest rates the supply of loanable funds will increase. [Ref. 18]

But the long-term reaction to more profitable investment opportunities is not necessarily an appropriate cost of the TAKX lease proposal. Argent Group is probably correct to assess the market as finite (in the short-term) and predict a displacement of other debt offerings into a less sheltered segment of the capital markets. Since the timing and degree of a shift in capital markets is not quantifiable, the more conservative approach is to consider the tax benefits as a cost to the TAKX project, in essence adopting the JCT position that TAKX tax benefits will be additional revenue loss to the Federal Government. Argent, despite arguments to the contrary, also presents the ITC/ACRS as a cost of leasing in most of their cost comparisons which, according to their calculations, only lessens the advantage of leasing but does not negate it.

3. Long Term Debt

The long-term debt portion of the cash flow is the most complex and controversial of the TAKX finance plan. Evaluation of the total effects of the long term debt and

method of application of the various reflows will ultimately determine the cost of leveraged lease financing. Much of the difference between the analyses can be attributed to treatment of the long-term debt portion of the financing. The disparity in treatment stems primarily from theoretical assumptions about the nature and composition of debt markets, interpretations of the market reaction to increased demand and the basic premise of the amount of debt to apply to each alternative.

In a FITELL, long term debt is the major item in the analyses due to the potential for the Federal Government to recover cost through tax reflows to the Treasury. This aspect of the financial analysis emphasized more than any other the different assumptions used in the studies to predict the cost of the alternatives, especially the purchase option.

a. Bond Issue

The long term debt in the TAKX is a bond issue that the lenders buy in competitive markets. The exact cost of the debt is not known until the market reacts to the debt offering which will most likely occur just prior to delivery of the ship. The bonds issued by the lessor are at a rate and with an amortization schedule acceptable to the lessor and the charterer since these factors determine the return to the lessor and the amount of Capital Hire to be paid by the charterer. To secure the

debt the lessor assigns the rental payments from the bareboat charterer (operator), which is the Capital Hire payment made by the Navy, to the agent of the lender. The Indentured Trustee services the debt on the bonds before distributing funds to any other participant. The lessor also grants a first mortgage on the asset to the holders of long-term debt. The debt is, therefore, said to be non-recourse to the lessor since the bondholders must rely on someone other than the lessor for the ultimate security of the investment.

The lenders look to the Charterer for credit worthiness and assurance of fulfillment of the conditions of the bond. The lenders are also concerned with the quality of the asset to ultimately secure the loan, if necessary. The lenders or debt participants in the TAKX, therefore, will be looking beyond the lessee (operator) to the Charterer (U.S. Government) by virtue of the service contract with the lessee for the security of their loan.

Government involvement enhances the financial character of the offering but complicates the transaction in another way. The government is seen by the other participants as central to the financial structure rather than as a remote entity with no more than a 'use' interest in the transaction. However, the position the government finds itself in as charterer/guarantor of the long term bonds is not unusual in a leveraged lease.

"One additional characteristic of a leveraged lease financing is noteworthy. The agreement between the bank and the equity participant is a non-recourse loan. This means that the bank cannot require the equity participant to pay off the loan in the event of a default on the part of the charterer. The charterer is the primary credit and the bank has no recourse to collect from the equity participant." [Ref. 10]

b. Tax Reflow From Interest Earned By Bondholders

The interest earned by the lenders is taxable and is a potential reflow to the Treasury which, if given full credit, significantly reduces the cost of the lease alternative. The degree to which the reflow is applied may ultimately decide if there is an advantage to the lease alternative.

The reflow can be calculated just as any of the other transfers already discussed such as Capital Hire payments are considered net of taxes in the computation of total government costs. Also reduction of the owner's taxable income based on the amount of interest paid on the long term debt is considered a cost of leasing. In the different models these reflows are recognized as valid but the real issue is the amount of debt figured in the purchase alternative.

c. Percent Debt in the Purchase Alternative

The controversy about the effect of the interest earned by the lenders stems primarily from different assumptions about the purchase alternative to which the lease is to be compared. Again, the lack of a

consistent model led the analysts to compare leasing to substantially different purchase alternatives. Each model recognized the existence of tax reflows from the debt portion of the lease alternative but those in favor of leasing give them full effect while those opposed see the effect offset by other factors.

Argent calculates a reflow to the Treasury of \$39.7 million (NPV) per ship directly attributable to the taxes paid by the lenders on the interest earned from the long term debt portion of the financing.

JCT considers this tax reflow offset by debt in the purchase alternative. They maintain that the interest earned by creditors in the leveraged lease would be equivalent to the interest earned by the holders of Treasury debt in a purchase. By considering the two flows equivalent JCT eliminates them from consideration. For that to be true, however, JCT must presume the purchase alternative is to be funded by 100% debt financing. Identical income tax profiles for the holders of that debt is also required if the reflows are to be of the same magnitude. The funds to purchase a TAKX ship would be a portion of the annual outlays from the Treasury and not borrowed directly from capital markets like the long term debt in the lease alternative. A portion of the outlays in any particular year are, however, borrowed in the capital markets since the government is currently operating with a

large budget deficit and is expected to continue to do so. As such, a part of the purchase price paid for a TAKX would actually be funded by Treasury debt which means there would be an interest payment to a lender that is taxable. This taxable portion of the interest payment produces a reflow to the Treasury in the same manner as Argent claims for the lease alternative, but it may not be of the same magnitude.

The amount "borrowed" in a leveraged lease transaction is typically 70-80% of the purchase price but TAKX debt placement is expected to be 57% based on a review of the Requests for Proposal. The amount "borrowed" in a government purchase can be considered to be directly proportional to the budget deficit which is expected to be approximately 21-22% in the years 1984 and 1985. The amounts borrowed under the two alternatives could be different by as much as \$63 million. The difference increases as the debt portion of the leveraged lease increases and decreases as the Federal debt rises.

In addition, the lender in the two instances is likely to be different. The debt participant in a leveraged lease is looking for a return with an amortized loan repayment schedule. The marginal effective tax rate of lenders in a leveraged lease may be higher than that of lenders to the Federal Government who are receiving interest payments through the life of the loan and return of principle at maturity. Purchasers of government long

term debt instruments may be in a lower tax bracket than purchasers of leveraged lease debt. Investors such as pension funds are prevalent in long term government bonds as opposed to corporations, banks and insurance companies who are likely debt participants in leveraged lease transactions. According to Argent they exhibit markedly different tax profiles and thus produce different reflows to the Treasury with leveraged lease transactions producing the greater amount [Ref. 5]. Argent presented no real evidence in support of this claim.

The tax reflow issue is central to the evaluation of the TAKX transaction. One's disposition toward the tax reflow question is the major factor in the final analysis. Argent calculates the reflows as a reduction in the cost of leasing, and JCT does not, producing most of the \$50 million difference between the two analyses. The impact of that belief is \$39.7 million or 20.6% of the net outflows from the Treasury. Without the reflow to the Treasury, the lease alternative would be more expensive than purchase by \$10.4 million (using all of Argent's other assumptions about residual value, etc.)

d. Discount Rates

Another aspect of the problem is the question of the proper discount rate to use for the present value computation. JCT contends the discount rate (10.25%) stipulated by the Office of Management and Budget (OMB) is

a pre-tax rate and therefore includes the tax effect of a reflow as well as the anticipated rate on long term debt.

"OMB chooses a discount rate which reflects the pre-tax cost of funds: the prevailing interest rate on government bonds. The pre-tax cost of funds is larger than the after-tax cost by the amount of taxes paid on the interest income received by the owners of government bonds. Since this tax reflow to the Treasury is already included in the pre-tax discount rate, it would be double counting for government agencies to adjust their outlays by the estimated reflows." [Ref. 6]

In other words, JCT contends the reflows that Argent and the Navy consider a reduction to the total cost of a lease are not only included as a specifically calculated reflow, but are also implied in the use of the pre-tax discount rate of 10.25%. Argent and the Navy, therefore, have "double counted" the effect of the taxable interest earned on long term debt according to JCT. But the basic question of the applicable interest rate is unknowable -- whether pre or post-tax.

Since Argent prepared their studies using discount rates which varied from 5 to 14%, they feel a full presentation was made of the range of possible discount rates. In view of actual rates in the market at the time Argent believes they have made a better presentation of real market conditions. At a 12% long term rate for government debt which was typical at the time of the Argent analysis and an assumed 13.5% average tax rate for holders of long tterm government debt and appropriate after tax discount rate is 10.38%. This is approximately the rate

used by Argent (10.25%) to discount the flows. Argent then included the tax reflows as separate items of flow causing the concern about double counting.

GAO also discussed the proper discount rate to use in analysis.

"If the tax liabilities incurred by the investors, equity and debt owners in the leasing company, were subtracted from the Government costs, the discount rate would be the after-tax discount rate computed as one minus the tax rate times the pre-tax discount rate. Since we do not know the tax rate of the investors, we discount at the pre-tax discount rate and ignore the taxes on investor income in our analysis." [Ref. 3]

The GAO study contains the implicit assumption that the amount of debt incurred in a leveraged lease is the same as in a purchase.

These major unresolved issues between the analyses make a precise estimate of the cost to lease vs. the cost to buy an impossibility. Depending on the point one wants to prove the issues surrounding reflows can be argued strenuously in either direction and figures produced that purport to prove the unprovable. Argent and JCT have been in the forefront in that regard but neither seems to have established an irrefutable argument.

4. Residual Value

The contract signed by the Navy agrees to a residual value of zero at the end of 25 years. It is not clear why this was agreed because the tax requirements for a true lease state the lessor must demonstrate a 20%

residual value at the conclusion of the lease. Since it is so far in the future, the difference between the assumed zero residual value and 20% of the capitalized cost does not have a large impact on the analysis. The cost to the government, net of tax, is under \$2 million (NPV).

The lease payments though are calculated to return to the owners the full value of the asset over time. The impact of the assumption of no residual value after 25 years allows the owners to recapture the full amount of the ship's cost within the Capital Hire payments and to realize additional return in the actual residual value of the asset at the 25 year point.

Potential investors are reluctant to estimate a residual value 25 years in the future and would require an upward adjustment to the Capital Hire rate to compensate for the uncertainty if they were required to accept such a risk. In the agreement as written there is the potential for the owners to gain from any asset value at the end of the full lease period. This "upside potential" makes the risk of such a long term investment more attractive to the owners and allows the Navy to theoretically pay a lower rent payment by elimination of that uncertainty of residual value.

Argent subsequently suggests a factor of 20% be used as the residual value because it agrees with the IRS requirements. Since the government cannot take advantage

of the salvage value in a lease it should thus be considered a cost to the lease alternative.

5. Purchase Price

The purchase price of the vessel is equivalent to the Basic Capitalized Cost discussed earlier. It includes the following fixed costs:

- a. Cost of Existing Ship (if applicable)
- b. Shipyard Conversion or Construction Cost
- c. Inspection and Supervision Costs

Additional costs are included to compensate the owners for legal and financing costs incurred during the period of construction and for the arrangement and placement of the long term financing. These additional costs are subject to adjustment from their original estimates at the time the contracts were signed.

The Basic Capitalized Cost also included spare parts, containers, insurance and a fund for changes to vessel specifications. [Ref. 15]

The range of purchase price is from \$170 to \$192 million per ship depending on the exact contract.

IV. OTHER ISSUES

A. CONGRESSIONAL OVERSIGHT OF FITELL

The extent of leasing within DOD or the Federal Government is not quantifiable but it is widespread, most notably for data processing equipment. Because of rapid obsolescence computers have been prime candidates for leasing and in many areas government leasing is required. In fact the Comptroller General allows the use of Operations and Maintenance (OMN) funds within DOD to obtain the use of assets via leasing arrangements that would otherwise require procurement funds. By applying principles used in non-government accounting the acquisition of capital assets via a capital leasing structure would require those assets be accounted as a procurement. This would ensure that the total costs to the government would be evident. Otherwise the total cost of the procurement is in essence "off budget" if only the yearly rental payment is visible. The acquisition should be visible in its entirety at the outset in a procurement appropriation and the yearly rental would be the amortization of the total cost over the lease term. TAKX has been utilized by the JCT to highlight this problem and, considering the \$2.4 billion price tag, it is of sufficient magnitude to warrant the concern expressed in Congress about such procurements.

The essential argument is that leasing by government agencies may distort the budget process. In the case of a Federal department, a multi-year procurement program is funded, at the start by a budget authorization which appears in the procurement portion of the department's budget account. The actual cash expenditure in each year of the procurement program appears as an outlay item in the procurement portion of the budget account. If the department acquires the same property through a leasing arrangement, the authorization for the cumulative cost does not appear as a separate item in the budget. The annual rental payments appear as an outlay item in the OMN budget rather than in the procurement account [Ref. 14].

Additionally as with TAKX there may very well be an associated termination charge liability for early termination of the contract. In most short-term leases for ADP equipment a substantial termination charge is unusual since neither lessor nor lessee expects the user to require the services of the computer equipment for an extended period or full useful life. However with TAKX where the Navy is procuring the asset with full intent to work the assets for 25 years, an early termination charge is appropriate and an accepted business principle. This allows the lessor to accept a lower rate of return due to the penalty imposed for early termination of the contract, and accordingly less risk enjoined to the lessor.

The liability introduced in a long term lease is never fully disclosed in the budget and only with special Congressional interest is the entire liability (the lease payments and possible termination charge) viewed in its entirety. Thus it would appear that leasing via an expense appropriation is contradictory to DOD Instruction 7200.4 that implemented the full funding concept. The full-funding concept was instituted by Congress to provide a cost threshold of capital acquisitions without specific Congressional authorization and appropriation. It allowed Congress to maintain visibility and political control over equipment being purchased by preventing piecemeal acquisition of equipment systems by the service via the requirement that full budgeting and funding for an item occur in only one year. Obviously this does not happen in leasing. Historically leasing became increasingly popular in the private sector in the high-technology post-World War II era. Capital acquisition via purchase required large amounts of capital or credit potential for debt funding, involved uncertainty of equipment and obsolescence, therefore leading to capital acquisitions via leasing that compensated others for accepting the debt and risk of acquiring capital assets. But the governmental budget process has not kept pace.

"Within the government, it becomes a case where the appropriation structure is lagging behind the new lease acquisition strategies of the past 35 years. The

appropriation structure deals adequately with outright purchase and the non-capital rental options, but does not fit squarely with capital type leases." [Ref. 14]

The accounting profession recognizing the private sector need to properly define capital leases did so in 1976 with Financial Accounting Standards Board (FASB) Statement number 13, previously discussed in Chapter 2. In essence TAKX is a capital acquisition via leasing. However no current provision for economic analysis of acquisition such as Office of Management and Budget (OMB) Circular A-76 for Cost Analysis, or adequate appropriation structure is in existence to review a lease transaction such as TAKX.

A second distortion of the budget process, by leveraged leasing occurs to the extent that procurement costs are shifted from the Department's budget to the U.S. Treasury through reduced tax revenues. As previously stated an inherent characteristic of leveraged leasing is the large tax credit to the lessor which theoretically results in reduced rents to the lessee. Therefore the difference between the true rent and the reduced rent being paid by the Treasury can be characterized as a subsidy to the Department's (the lessee's) budget. That difference never appears as a separate item on the budget, and the total cost to the government can never be ascertained from the unified Federal budget. [Ref. 14]

In point of fact the difference between the true rent and the reduced rent is based on the marginal tax rate of

the lessor, the percentage of the difference that is required to cover transaction expenses and the taxable income of the lessor so the true difference could only be calculated at the end of an accounting period and the rate is variable per year so an accurate estimate could not even be projected over time. Additionally negative tax flows are not controlled by the Federal government under the apportionment process. Thus these discrepancies between budgetary accounting for procurement by purchase and lease make it difficult to determine the true cost to the government of Federal Department leasing programs.

[Ref. 14]

A third component of the problem in Congressional oversight concerns the nature and the consequences of accounting for a leveraged lease in an expense appropriation (OMN). A 25 year lease authorized in the OMN account in effect creates a 25 year entitlement. An entitlement that once is authorized in a binding contract cannot be cancelled without severe penalties. The penalty for cancellation of the TAKX in FY85 would be \$1.42 billion. So if it is assumed the entitlement is fixed then it can be classified as uncontrollable, reducing further the discretionary power Congress has to manipulate the budget. The current estimate of uncontrollable outlays in the present DOD budget is 33.9% [Ref. 19]. However if we include salaries as uncontrollable then the amount is

closer to 80%. The controllable portion then becomes \$40 billion and the cost of TAKX alone reduces this amount by .5%. Total leasing obligations significantly reduce the controllable percentage of the budget and Congress strongly resists such entitlements, especially in the Defense budget.

Another argument that is voiced against federal department leasing involves how much actual control Congress has over assets leased from the private sector by agencies. Congressional control within DOD can reach as far as the deployment of assets overseas to hostile environments. There are serious doubts in some areas as to the control Congress can exercise over non-owned assets. TAKX is a perfect example in point. In the event of hostilities the interest of the lessors and the Defense Department may differ considerably about the deployment of the property.

Whether this is a serious problem today is best addressed by looking at past experiences. The Navy has the ability within the contract to direct the ships to locations to accomplish the mission during a national emergency or otherwise. If there is concern whether the crews will comply there is no precedent to substantiate serious doubt about the willingness of the Merchant Marine to accomplish their tasks. During World War II, the Korean War and the war in Vietnam the Navy relied on large scale

chartering of merchant ships for the transport of vital war materials into hostile areas. From the performance in the past there is no reason to suspect the Merchant Marine would be unreliable in the future. In fact Congress mandated in the Merchant Marine Act of 1936 that the naval and military auxiliary stand ready and are capable of serving in time of war or national emergency and should be taken into account fully in military strategic planning.

Leveraged leasing has been portrayed throughout this study as a complex financing tool. The ability to project costs and reflows requires experts in taxation, accounting, and law fields. Such expertise is not available within the Navy to manage a leveraged lease transaction the size and complexity of TAKX. Argent's total and continuing involvement with all aspects of the transaction is evidence of that shortcoming within the Navy establishment. If such transactions are to continue the required expertise must be developed.

There also exists no definitive analytical approach approved by Congress or OMB to provide guidelines for agencies to evaluate the lease versus purchase transaction. OMB Circular A-76 defines the environment in which procurement transactions must be analyzed. Whether or not A-76 defines a realistic approach or only an approach to help rank the alternatives is debatable, but nothing exists like A-76 for the analysis of leveraged leases. Viewing

all the variables involved it is perhaps unlikely that any type of single analytical approach can be applied to each case. Any approach will be considered deficient by some because it cannot define that which is not definable. This lack of analysis further reduces congressional oversight. Congressional staffers, OMB staffers, or DOD staffers all present different solutions and therefore Congress cannot judge which alternative is 'best' for the budget.

B. CONGRESSIONAL OVERSIGHT OF TELL

Bennington College sold classrooms and dormitories to alumni and now leases them. NASA is leasing a satellite after selling it to private investors. The City of Atlanta sold City Hall and leased it from the new owners and Miami is considering the sale and leaseback of the Orange Bowl. These are examples of TELL in recent news and represent a growing list of similar transactions that worries Congress. Like TAKX the TELL involves the sale and lease of an asset but there are important differences. TELL involves a non-federal tax exempt entity together in a lease with a taxable entity. They structure the lease financially so the tax benefits available to the taxable owners are shared with the non-taxable lessors, after an asset has been exchanged.

Like the FITELL the participants in a TELL agree to the sale of a depreciable asset (usually a building) owned by

the tax exempt entity, to a taxable investor who typically combines equity and debt to pay the purchase price. A long term lease to the tax exempt party accompanies the sale. The tax exempt entity as lessee retains essentially the same use of the asset as before the sale but is now obligated to make a series of rental payments to the lessor. The lessor is entitled to any depreciation, cost recovery deductions or other tax benefits available to the owner of the property. There is typically a flow through to the lessee in the form of reduced rental payments which reflect the benefits accruing to the owner. The lessor may in some cases finance the purchase with tax-exempt industrial development bonds (IDB).

The Navy, as a part of the federal government, is not a tax paying entity and as such is not entitled to tax benefits directly or indirectly in the way a corporate entity might be. In TAKX the Navy is taking tax benefits, just like Bennington College or the City of Atlanta is doing in a TELL, that it is not otherwise entitled to. In the case of Federal agencies Congress has the budget mechanism to exercise control. This is not the case in TELL. The Joint Committee on taxation addresses the controversy.

"...did Congress intend that tax-exempt organizations should receive tax benefits from leased property which they would not be eligible for if they purchased the property? Furthermore, because these tax benefits do not appear in the unified federal budget, it

is difficult for Congress to determine the amount of tax revenue given up as a result of nonprofit leasing."
[Ref. 6]

The Navy and other tax exempt organizations have found a way through leveraged leasing (TELL or FITELL) to benefit from tax incentives for which they are not otherwise eligible. As the JCT stated above, Congressional oversight of expenditures is a significant issue in the case of Federally funded agencies involved in FITELL because of the unique combination of "flows", "reflows", and "pass throughs." The total cost of a Federal project or program is not now visible to the normal budget process and Congress is trying to close that gap with legislation.

One essential step is a model that properly evaluates all the factors to provide Congress with total cost or at least a sufficiently reasonable method of cost comparison so informed judgements can be made on projects competing for scarce funds. Congressional review would then have both the direct outlays and the tax benefits which together show the true cost of the program and should be used to evaluate it.

It is a different matter, though, in tax exempt leveraged leasing (TELL). These cases involve non-federal agencies that enjoy tax exempt status. Senator Howard M. Metzenbaum described the process:

"Through this practice, tax exempt entities like cities and universities have, in effect, gone into the business of selling lucrative tax shelters to private

investors. How does this work? Because a city, for example, does not pay Federal income taxes it is unable to take advantage of the investment tax credit and depreciation deductions associated with its property. But a city can sell a building to a taxpayer, who can take advantage of the lucrative tax benefits and then lease the building back to the municipal government." [Ref. 12]

These transactions result in lost tax revenues to the Federal Treasury with no possibility of Congressional review or oversight on a program or individual basis since these transactions are out of the Federal budget review process.

Another even stronger criticism of TELL is the sale and leaseback of existing facilities. If the original intent of the tax incentive is to stimulate capital investment, the sale and leaseback by a municipal government or university of facilities it used to own defeats the purpose of the tax incentive. It is in effect generating federal tax benefits that did not exist before the property changed hands and in essence subsidises municipal treasuries from the Federal one while reducing capital investment by soaking up debt funds.

C. LEGISLATIVE INITIATIVES

Two bills are now before Congress which are designed to establish control over the loss of tax dollars from transactions like TELL and FITELL. In the House the Government Leasing Act of 1983, H.R. 3110 proposed by Congressman Pickle (D-Ohio) would require straight line depreciation over extended recovery periods for property

used by tax exempt entities and would tighten the present law allowing investment credits for this property. Extensions are based on the ERTA property class designations which stratified assets by type into four groups and specified the length of the recovery periods by group. The recovery period extensions are:

| In the case of | Recovery period is |
|------------------|--------------------|
| 3-year property | 5 years |
| 5-year property | 12 years |
| 10-year property | 25 years |
| 15-year property | 35 years |
| (public/real) | |

The investment credit provisions contained in the bill are aimed right at the heart of TAKX:

"The bill would extend the present law denial of the investment credit for property used by governmental units and certain tax exempt entities to cover-...
...Property used pursuant to a contract that purports to be a service contract but is more properly treated as a lease." [Ref. 20]

The effective date is 23 May 1983 after which any property placed in service must comply. Any binding Federal contract in place before that date is exempt only if the asset is placed in service before 1 January 1984. TAKX ships are not scheduled to be in service until after 1 January 1984. [Ref. 20]

The impact of the Pickle bill on TAKX would be drastic. The Navy's undiscounted Charter Hire payment per ship would

increase from \$415 million to \$570 million. This is an increase of over \$6 million per ship per year and on a 13 ship program over twenty-five years the total Charter Hire would increase over \$2 billion.

The result of the proposed change in tax law makes leasing more expensive than purchase by \$9 million per ship. Additionally the program becomes unattractive to equity investors who see other leveraged leases with ITC and 5-year ACRS and much less uncertainty.

The Senate legislation is S. 1564 Government Lease Financing Reform Act of 1983 sponsored by Senators Dole, Metzenbaum, Durenberger and Grasseley. In general S. 1564 would reduce the tax benefits that would otherwise be available for property used by tax exempt entities, with exceptions for certain short-lived property, certain real property and property subject to short-term leases. The bill also provides criteria for use in determining whether an arrangement that is structured as a service contract should be treated as a lease.

For property leased to or used by a tax exempt entity, depreciation would be computed using the straight line method, disregarding salvage value, over the greater of the present class life of the property under the Asset Depreciation Range (ADR) System or a period equal to 125% of the term of the lease. The lease term includes any period for which the lease may be renewed or extended at the lessee's option. [Ref. 1]

The investment credit generally would be denied for property leased to, or otherwise used by, a tax exempt entity. The bill would expand the category of tax exempt entities subject to the restriction by providing guidelines for distinguishing a service contract from a lease. The service contract determination centers around these factors; control and physical possession, possessory or economic interest, assumption of risk for loss due to non-performance and use of the property concurrently to provide services to taxable entities. A transaction structured as a service contract would be considered a lease if all of the following were present:

- "(1) Employees of the tax exempt entity operate or assist in the operation of the property,
- (2) The property is dedicated solely to the tax-exempt entity for a substantial portion of the useful life of the property,
- (3) The cost or value of the property dominates the price of the total arrangement,
- (4) The tax exempt entity bears the risk that the property will decline in value...and
- (5) The tax exempt entity bears the risk of damage to or loss of the property." [Ref. 21]

The Senate legislation contains the same effective date, 23 May 1983, as H.R. 3110 and the same requirement for the asset to be placed in service before 1 January 1984. Again the effective date provision only applies to Federal leases.

The enactment of either version of leasing reform bills would drastically effect the TAKX and T-5 transactions. Mr. Everett Pyatt describes the impact in testimony before the Senate Finance Committee.

"The TAKX and T-5 ships are scheduled to be delivered and placed in service from 1984 through 1986. Since the contracts are already in place, the effect of the provision would thus be to require either an appropriation by Congress to buy the ships or a cancellation of the program, either of which at this point would be a substantial and needless expense. In short, this provision upsets negotiations and contracts undertaken in good faith and would inflict devastating effects on the program." [Ref. 4]

The response from the Department of Defense has been primarily directed toward changing the 1 January 1984 in service date or "grandfathering" the TAKX and T-5 transactions. As of this date legislation is still pending.

V. CONCLUSION

A. FINANCIAL

The studies used throughout the thesis present the financial extremes of the TAKX transaction. The Navy shows the leasing alternative (which is the only alternative if Congress will not approve a purchase) to be a cost effective means of acquiring the use of these particular assets. Others who are less involved in the Navy's program make different assumptions about the financing arrangement and conclude the transaction is not a cost effective approach to the problem. In either case the basis for the conclusions involves assumptions about interest rates, tax rates, and economic trends that are unknowable twenty-five years in the future. Any prediction has to be a simplification of the most dynamic aspects of corporate and economic life. To base a twenty-five year projection on such assumptions produces numbers that are only speculative at best.

The obvious difficulties in projecting costs over such a long period make a comparison of results of different studies nearly impossible. It is no surprise the primary analyses produced different results. If a final tabulation were possible twenty-five years hence the historical cost might well be somewhere between the two.

The Navy was faced with a requirement to provide hulls for the Rapid Deployment Force. Congressional approval for the purchase of the necessary auxiliary ships was not forthcoming so the Navy undertook this "creative financing" and processed it through Congressional checkpoints to signature. It was a smart and proper action for the Navy to take for they end up with the means to fulfill the assigned mission with little overall budget impact in other areas. No significant tradeoffs in FY83/84 were required to gain the TAKX and T-5 ships with leveraged lease financing. Criticism of the Navy by Congress is not well founded because Congressional requirements were followed throughout.

"Regarding the TAKX, Congressional review included a study by the House Appropriation Committee Surveys and Investigations Staff hearings by the House Armed Services Readiness Committee and staff reviews by the Armed Services and Appropriation Committee of the Senate and House. All four Committees provided written concurrence with the Navy plan to finalize the conditional awards for its chartering program made in mid August, 1982."
[Ref. 4]

Apparently Congress needs to revise the review procedures for this kind of transaction. For example Section 303 of the Fiscal Year 1983 Defense Authorization Act requires the Navy to notify the House and Senate Committees on Appropriation and on Armed Services before entering into long-term leases. This requirement only applies to funds appropriated under the fiscal year 1983 Defense Authorization Act and only to the Navy's ships and

not to other services. The Navy may proceed with the lease after 30 days regardless of the views of those committees. Section 303 is the only requirement for Congressional oversight of long-term leases and is clearly inadequate. If Congress is to be aware of the impact and scope of FITELL new laws are required.

Additionally the manipulation of ITC/ACRS tax benefits that can occur in TELL or FITELL or leveraged leasing generally is also controllable by Congress if they have the will. Tax benefits claimed from the transfer of an existing asset is an obvious distortion of the intent of the law. These loopholes were not intended in the original legislation and the legislation almost certainly will be changed to reflect this.

All of the calculations made by the various entities are meaningless if equity participants sell their position after depleting the ITC/ACRS. Those buying in are entitled to similar tax benefits and if this occurs it further complicates the cost determination, except to say leasing will surely be more expensive to the Federal Government. This "roll-over" of a long term investment is a real possibility which further compounds the problem of analysis.

B. DIFFERENT ECONOMIC PERSPECTIVES

In our study of TAKX it became apparent that each entity in its presentation of the TAKX analysis would

conveniently mix levels of analysis switching from macro-economic positions to microeconomic arguments, to decisions based on corporate investment strategy. The first, second, and third order flows are a classic example. Depending upon how one defines TAKX in the market place identifies what costs are relevant in the subsequent analysis. No study actually defined the environment within which TAKX would be analyzed. Argent often presented a microeconomic view assigning all the costs and reflows to TAKX. But Argent would switch to macro theories in expressing how the market would react to the entry of TAKX, without relating how macro theories would affect the earlier defined costs and reflows. Likewise JCT would present a micro view of TAKX as it relates to the budget in terms of TAKX impact but would reverse itself upon discussing TAKX's entry into the debt markets and not redefine the position of TAKX with respect to all of the other leveraged lease transactions and combined impact on the budget.

To present a consistent analysis of TAKX it is necessary to assume a single economic viewpoint. Tax expenditures and deficit financing must somehow be reconciled with corporate tax shelter strategies so that a consistent view is followed in the analysis. Again the differing levels of analysis used by each entity must somehow be limited to one environment to facilitate the comparison of the various studies with one another.

C. AN AREA FOR FURTHER STUDY/TAKX AS A MICROCOSM

In the interviews at Military Sealift Command and in the Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics) TAKX was described by several interviewees in terms of the immediate economic effect it has on a severely depressed shipbuilding industry. TAKX is responsible according to them, for virtually the only work in three of the four shipyards with TAKX contracts and has created over 12,000 jobs in the shipyards plus many thousands of jobs for subcontractors and vendors around the country. The program will create more than 750 seafaring jobs for the U.S. Merchant Marine. The program is also credited with the prevention of default on approximately \$100 million of government guaranteed notes on three of the ships in the program.

Everett Pyatt, ASN (S&L), described the TAKX program as a "microcosm" of a larger problem of preservation of the vital U.S. capability found in the troubled shipbuilding industry. Does leveraged leasing provide a means to maintain some of the threatened shipbuilding capability in the U.S.? Does leveraged leasing equitably share the burden of preservation of a vital industry? How does it compare to previously used methods such as direct subsidies, preferential and prejudicial tariffs? As Mr. Pyatt said in his testimony before Congress,

"Aside from the fact that we believe that a proper analysis of the total cost to the Government shows that chartering is less expensive than leasing, we submit that even if that were not the case, the intent of Congress in providing the various tax incentives has been fully achieved in the TAKX and T-5 tanker programs." [Ref. 4]

Only through continued use will the industry be preserved to fulfill the critical strategic role many envision for the future. If the preservation is to be accomplished, can leveraged leasing be considered a viable means to equitably share the cost? The answers to these questions can provide further insight into the future of leveraged leasing in the Department of Defense.

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